

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY



I.—THE RIGHTNESS OF GOODNESS (I.).

BY P. LEON.

I WANT to put forward tentatively some suggestions as to the relation between the right and the good, which 'in spirit' resemble the Neo-intuitionist doctrine (a description which I venture to apply to the tenets of Prof. Prichard, Mr. Carritt and Mr. Ross, without wishing to imply that what I criticise here is held by any of these exactly as expressed by me), but which can only be expressed by criticism of details of that doctrine. One detail which Neo-intuitionists themselves have (wrongly and unnecessarily, in my opinion) made cardinal in the doctrine, is the proposition that acts are right or wrong, irrespective of their motives. I suggest that there is something which is right or wrong irrespective of motive, but that it is confusing and misleading in the extreme to call it an act.

Most books on Ethics fairly early on lay it down that, whereas 'good' and 'bad' can be used of other things also, 'right' and 'wrong', at least in a specific sense which can be called ethical, are applied only to acts or actions. *Actions and Passions.* I think it is more correct to say that in this specific sense they are used in connexion with *history*, i.e., occurrences in which persons are involved as agents and patients.¹ Most history has both an active aspect (that is, it is action by an

¹ The agent can be a patient to himself just as he can be known by himself.

agent, an agent's living, conscious origination, production or initiation) and a passive aspect (that which persons suffer, which enters into their lives). This latter aspect is generally called the effect of action; I will refer to it as 'passion' (using the word in its Latin sense).¹ Judgments about right and wrong are evoked by either or both aspects. Thus, we say both (a) that it is right that X should keep his promise to Y (action) and (b) that it is right that Y should have what he has been promised (passion). It is only artificially that we speak of 'right action', where common speech says that the agent acts rightly, or is right in acting thus, or ought to do this (we may neglect, except where it is relevant, the distinction between 'right' and 'ought'). With equal artificiality we may speak of 'right passion' or 'passive rightness', meaning that it is right that the patient should have something happen to him, or that he deserves this, or has a right to this, or that this ought to be.

Although moral rules are nearly always, apparently at least, about actions, we are, as a matter of fact, mostly interested in 'passions', and in agency only as a cause of, or as instrumental to these. Such is the predominant interest of History. The historian estimates the terrific significance of Constantine's adoption of Christianity merely as something that happened to the world, or something which the world suffered, without considering it as something in the context of Constantine's life; in contrast to the biographer, to whom this terrific significance is nothing, and who, being interested in Constantine's adoption of Christianity as Constantine's action, as something expressive of what Constantine was and thought, may pronounce it as such a wrong act of blind superstition or a gross violation of a statesman's duty, and may do this even when he himself believes in historical Christianity and missionary activities, and looks upon the particular event as the supremely right thing to have happened to the world and as a special manifestation of Providence. From the point of view of social well-being also, our attention is engrossed by passive rightness and wrongness. We do not estimate the rightness of a gift of money to a College by the

Predominant interest in passion.

¹ Mr. Ross, *The Right and the Good*, pp. 6, 7, seems to require three things: (i) action or the initiating of change or the doing of a thing; (ii) act or the thing done or the initiation or production of change; (iii) —presumably—the changed or new state of affairs, that which has been produced or initiated, what I call 'passion'. Surely (ii) is absorbed either by (i) or (iii). Mr. Ross is not explicit on this; but it is crucial in his whole argument, which really seems to require three things, so that I do not think I am quarrelling merely with unguarded expressions.

circumstance that as an act of the donor it is merely an act of ostentation or vanity ; for we are thinking of it as the having of the money by the College, and it is right that the College should have it. That every action of a particular able statesman is a ministration to his vain-glory or love of power (*i.e.*, the desire to be above every one else) and that he does not value even the exercise of his abilities and the pleasure therefrom, does not matter to us, provided that the community is well governed. (It would, of course, matter very much if we tried to make him a character in a novel or drama.) The Tenth Commandment does indeed forbid a man to covet his neighbour's house, wife, servant, maid, ox or ass, or anything that is his ; but from the merely social point of view he can covet them to his heart's content, and even take them (as some would say he does, in so far as he is prevented from overt action only by fear), provided this does not involve his neighbour's suffering their loss, which is the wrong that really interests us.

It is not surprising therefore that Moral Philosophy also should have concentrated its attention mainly on passions, especially modern Moral Philosophy, which has turned so much round the confirmation or refutation of Hedonism, eminently a philosophy of passivity. Even when Hedonism has been refuted, this has only meant the setting up, alongside of pleasure, of other 'goods': knowledge, beauty, virtue, 'goods' which can be possessed and enjoyed ; and rightness has been discussed only with ultimate reference to this passive possessing. What is surprising is that Aristotle, whose Moral Philosophy, to conform to modern generalisations about him, should be chiefly about the *πόλις* or Society, which is so much more easily thought of as an impersonal recipient or storehouse of 'goods' than as an agent, does give us a fairly adequate account of the rightness of action, and action of the individual too, whereas from most modern Ethics we get the impression of individuals, of Society, or even of God or the Absolute, as so many warehouses, small or large, of 'goods'. Most surprising and most grievous of all is that Neo-intuitionism, which protests so strongly against this referring of 'rightness' to 'goods' and talks so loudly of actions, has chosen for its study what are not actions at all, when it speaks of actions which are right irrespective of their motives. How the idea of such actions can arise, and what is to be said against it (or perhaps for it) we shall perhaps best understand by considering first an interpretation of an instance which does not allow this idea to arise, and then an interpretation of the same instance which does.

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Let us say that X has induced Y to come into the service of his firm by the promise that, on Y's fulfilling certain conditions, he would promote him after a year. For simplicity's sake, and not to bring up the question of general rules and legitimate exceptions, let us say that we know in this particular case that it is right both that X should keep his promise and that Y should have the fulfilment of the promise. We know that Y has accepted, satisfied the conditions, and after the agreed time gained promotion. We do not know how this promotion came about. We may have various theories: (a) that X contributed nothing to it, but Z, another member of the firm, (1) knowing of the promise and because of this, or (2) not knowing of it, but wishing to retain Y's services, has promoted him; (b) that X, hating or loving Y, but in any case realising what a promise means, i.e., that it entails the obligation to do what one has promised, has, with and because of that realisation, promoted Y. (In this case, we should say X has just kept his promise); (c) that X, because he loves God, which love urges him to love his fellow man and to be a loyal member of Society by keeping his promises as well as by doing other things, has promoted Y. (In this case X has kept his promise, and in doing so, has realised different levels of his life, which are arranged in a certain hierarchic order); (d) that X, thinking he ought to keep his promise and also wanting to advantage his business, has promoted Y. (Herein X has combined two acts, keeping his promise and advantaging his business, acts which are not united by any very organic bond, but which may meet sometimes. Or perhaps it is better to say the same action has two different strata); (e) that X, having forgotten about his promise, but thinking that Y ought to be rewarded because of his merits or helped because of his misfortunes, has promoted him. (Here X has acted rightly, and has done a duty, but not that of keeping his promise); (f) that X, (1) having forgotten his promise, or (2) having remembered his own words but not realising what a promise means, or not respecting its bindingness, yet afraid of what would happen to himself if he did not promote Y, has promoted Y. (In this case X has certainly not done his duty and so far has acted wrongly. He has been engaged in saving his own skin, which action may be right or wrong, or indifferent.) The alternatives may be multiplied indefinitely, all of which would have the same *terminus*, namely Y's being promoted or getting his promotion. In this particular instance we can judge about some rightness of the passive aspect of the transaction or situa-

tion, without reference to the active aspect. (We cannot do this in all cases, and perhaps not with *all* the rightness of any passion. My passion or suffering, for example, is very different according as to whether it is the fact, or I believe or know, that a person has knocked me down accidentally, or by design with intent to do me harm or good.)

“But” it will be objected by some, especially by those who are fondest of citing the consciousness of the man in the street after rigorously expurgating and interpreting it, “there is no such thing as rightness of a ‘passion’.” Y’s being promoted can only be good, not right; when the ordinary man says it is right that Y should be promoted, or that Y ought to be promoted, he simply means that some one ought to promote him”. To this I can reply that I, as ordinary as any man, do certainly by that expression mean to imply that some one ought to promote Y, but only because Y ought to be promoted; that Y ought to be promoted is what I state and mean and what is to me primary. But neither my ordinariness or innocence nor that of anyone else can settle the question. We can, however, show that we use, or can use, rightness of ‘passions’ in respect of exactly the same kind of characteristics as call for the use of it in the case of actions, and further, that by ‘actions’ which are right irrespective of their motives, we can only mean ‘passions,’ if rightness is a kind of rationality just as beauty or truth is. Y’s being promoted is right in respect of the following characteristics: (1) It is part of the life of a rational being. (2) It is good or connected with goodness; but the goodness and rightness are not identical; if there cannot be rightness without goodness, neither can there be goodness or the same goodness, without rightness. (3) Rightness is predicated in respect of a certain unity, structure, form, or organisation: there must be a manifold of elements held together in an intrinsic unity; thus, it is not Y’s being promoted by itself that is right; it is necessary that there should also have been Y’s reception of the promise and its becoming a part of his life, that is to say, the turning of his life into a definite channel, and further the carrying out of the stipulated conditions; on the other hand, if Y has had to do more than carry out the conditions, if he has had to enter into a new agreement or make further sacrifices, we should say the unity between his being promoted and his having been promised has been broken, that there has been a new beginning in his history with his making the new agreement or sacrifice, and that the rightness or wrongness now to be considered is

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in respect of the unity between that new beginning and the being promoted. I do not, however, maintain that my analysis of the unity required is the correct one. A crucial question is whether the unity must be in the patient's life only, in an agent's life only, or in both. I have implied that *in this particular instance* there need be, or at least we need consider, the unity only in the patient's life. Thus, to refer to my list of possible alternatives, if (a) (1) or (a) (2) was the case, then all would agree that there has not been that unity of elements in a piece of history which make it the keeping of a promise. I would also maintain that if (e) or (f) (1) or (f) (2) was the case, there has been no keeping of the promise. Yet all these alternatives can have in common the same right passion or suffering or treatment for Y.¹ There can be the rightness of a promise being fulfilled without there being the rightness of a keeping of the promise.

The Principle of Sufficient Reason requires us perhaps to say that every right passion implies *some* correlative right action.

But we cannot always find the correlative active rightness in the immediately apparent action or the action which is the immediate cause of the passion. Thus, only if (b) or (c) or (d) was the case, is the connexion obvious and fairly simple: the active rightness correlative to the passive rightness is in the immediately causing action, the keeping of the promise. It is important to note that the keeping in view of the unity or structure constitutive of the passive rightness (*i.e.*, the connexion between Y's being promoted and his having been promised, etc.) is part of the effectively organising principle which is constitutive of the rightness of the action. But even here the connexion is not really simple. The active rightness does not reside wholly in the immediately causing agent or action; for X, the promiser, might have done all that was in his power to keep the promise and have been prevented by unsurmountable obstacles from promoting Y, in which case there would have been the active rightness (which might perhaps even be called the rightness of keeping the promise) without the correlative passive rightness of the promise being fulfilled for Y, and, we may say, with the passive wrongness of the promise not being fulfilled for Y. The active wrongness correlative to this

¹ If the community is considered as the patient, there is a special rightness if the labour or energy or money required to bring about the passion comes from a particular agent (X in this instance). There is still no reference to his action proper.

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latter passive wrongness would, however, have resided not in the action of X, but in that of the agent or agents who put the obstacles in the way, or, if there is no familiar agency, in Chance or the nature of our world. But, since the powers of the individual are limited and the possible obstacles numerous, that X's right action should as a matter of actual fact be followed by Y's right passion cannot be due simply to X; some of the active rightness must be attributed to other agents, to Society, and perhaps in all cases, to a certain extent, to Fortune or Providence, which is either the same as or different from Chance. If (a) (1) was the case then the action of Z is both the immediate cause of Y's passion, and has an active rightness correlative to Y's passive rightness; for the unity constitutive of the latter is part of its own effectively organising principle: it cannot, however, be called the keeping of a promise, since Z was not the promiser, and we will suppose the promise was not made in the firm's name. If (f) (1) or (f) (2) was the case, then the immediate cause of the right passion is X's action; yet this has not the correlative active rightness; for it certainly is not the keeping of the promise, nor is it, like Z's action, effectively organised by the keeping in view of the unity constitutive of the passive rightness. Its own unity is simply between X's fear and his promoting Y, whereas his having promised and his promoting Y are related simply by succession in time and by having the same agent. True, X has promoted Y; but just as Y's being promoted is not right by itself, so X's promoting is not right by itself; but this will be discussed later. If, however, X's fear is of Public Opinion or of the Law, then the correlative active rightness we are looking for is to be found in the operation of the Social Will (whatever that is—we are not discussing Metaphysics), which in willing the enforcement of contracts in general wills also the enforcement of this particular contract, and which, if the case is brought into court, becomes definitely personalised in the judge who keeps in view and wills the rightness of Y's particular passion. In this case also, no one would be keeping the promise. If (a) (2) or (e) was the case, then it seems that we must look for the correlative active rightness in Fortune or Providence; for, to pass over (a) (2), in (e) there is rightness but not the correlative rightness we are looking for. The rightness of (e) is correlative to the passive rightness constituted by the unity between Y's merits and his being rewarded or Y's misfortunes and his being helped.

This analysis may be continued, wearisomely, it is true, but, I hope, not unprofitably. It will meet with many difficulties.

It is to mark some of these rather than to give an explanation that I have brought in Chance and Fortune or Providence. These particular difficulties are not peculiar to this analysis. They crop up, but are not always faced, particularly when we make the rightness of an act depend upon its consequences.

But a very different description, one which I shall try to make as like Neo-intuitionism as I can, may be given of my imaginary instance.

"The alternatives which you have given," it might be said, "have not merely in common the same 'passion'." *Right 'actions' and Motives.* They are the same action or act done from different motives: In (a) (1), (b), (c), (d), (e) the motive is the sense of obligation, or of duty, or of what is right; in (a) (2) it is the desire to keep Y's services; in (f) (1) and (2) it is fear. In (a) (1), (b), (c), (d) and (e) the act, besides being right, is also morally good because of its motives, and would have been morally good even if it had been wrong; in the other cases it is still right but morally indifferent or bad, or at least not obviously good. In all the cases the action is right irrespective of the motives."

I have myself avoided the word 'motive'. Its use is apt to imply that the motive, an integral phase of the whole piece of history which is the action, is the cause of all the rest which is then called the action. This is like saying that my thinking or writing the first half of my sentence is the cause of my thinking or writing the second half, or rather that my writing or thought is in the second half, the first half being just cause. Further, since effects may be considered apart from their causes, we conclude that the portion dubbed the 'action' can be considered apart from the 'motive' even for the important purpose of seeing its meaning—rightness, I take it, being a kind of meaning at least in the way in which beauty, for example, is. This is what happens in the interpretation I have just given.

What, I would ask of it, is the specific nature of this action which is identical in all the alternatives, and what is its specific rightness? Is the action in all cases the keeping of the promise, and is the rightness that of keeping the promise? Only in (b), (c), and (d) is there a keeping of the promise. In (a) there is none; for Z cannot keep a promise which he has not made, even if he knows of it, still less can he keep a promise which he has not made and of which he does not know. That is to say, the keeping of the promise is not constituted by two intrinsically unrelated elements: X's having promised to promote Y and Z's independently promoting Y. But the same disconnectedness

forbids us to hold that there has been the keeping of a promise in the case of (e) and (f). Here, it is true, the piece of active history is not divided between two agents. But that makes no difference. If X has forgotten his having promised, there is no connexion in his living, thinking and therefore acting, where alone it can be or can be relevant, between his having promised to promote Y and his promoting Y (though, of course, the connexion between Y's having been promised and his being promoted remains in Y). The disconnectedness is as great as in the case of (a).¹ A man cannot keep his promise by accident or without meaning it as the keeping of the promise, any more than he can, accidentally or without meaning it as such, express the truth. The truth may be received by another through him (the 'passive' aspect of the transaction), but then we should look for the speaker of the truth in some personalised Fortune or Providence, and the speaker of the words would be considered a mere organ or mouthpiece. Equally great is the disconnectedness when X is aware that he has promised to promote Y, but is not influenced by that awareness to promote Y. There is just a gap between the having promised to promote and the promoting. The unity between these two which constitutes the keeping of a promise must be more than mere succession in time and their belonging to the same agent; it is as intrinsic as, and analogous to, the unity between the elements of a judgment or of a syllogism; for keeping a promise, like any other action, not merely involves but is a kind of thought, the thought which is doing or practical. Hence, to say that the fact that one element has come after the other and that both belong to X constitutes X's keeping his promise is like saying that a certain obscene Vergilian cento of Ausonius is, as a unity, the poem, and was the thought or feeling, of Vergil, just because every phrase of the cento comes from some part of Vergil and because each bit of thought or feeling expressed by each phrase was undoubtedly Vergil's.

It might be thought that I am spending unnecessary labour in knocking down a man of straw, because no one would say that in all my alternatives there is the keeping of the promise. Perhaps (but I am not sure) no one would, when presented with my analysis. But certainly, many, making their own more sympathetic analysis, do say that there can be a keeping of a promise from different motives. (From my own analysis it

¹ If (e) or (f) is to be called the keeping of the promise, then (a) must also be called this—a valid *reductio ad absurdum*, it seems to me.

will be clear that if X has kept his promise, there can have been only one 'motive,' not of course for his keeping his promise—a nonsensical expression, since the 'motive' is a constitutive phase of the history called the keeping of the promise—but for his promoting Y.) And if it is denied that the action which is the same in all my alternatives is the keeping of the promise, of what sort are it and its rightness? Is it an act of justice or of reparation or of remuneration? Whichever description we use, it can be shown that the action cannot be the same in all the alternatives.

Some, after perhaps eliminating arbitrarily (a) (1) and (2) on the ground that a third person is introduced, will say that it is the keeping of the promise and that the keeping of the promise is just promoting Y. But if promoting Y cannot be the keeping of the promise, even when standing in some, but not an essential, relation to the having promised, then assuredly it cannot be this when standing in no relation. Or they will just say that what is identical is the promoting Y (which I admit) and that just this is right.

We will pass over the fact that the rightness must be not merely general, but specific, *i.e.*, the rightness of keeping a promise, of reparation, etc. The indubitable truth remains that there is no rightness in respect of the promoting by itself. Promoting Y can be merely an element in a structural whole in respect of which, as such a whole there is rightness (or, it may be, wrongness). All the right actions which we have considered, correlative to Y's right passion, *viz.*, that of Z in (a) (1), that of Public Opinion or the Social Will or of the Judge, and that of Fortune or Providence,¹ have this in common: as part of their effectively organising principle, *i.e.*, that which shapes and urges to realisation the action, they have the keeping in view of the unity or structure or principle constitutive of the rightness of Y's passion; the thought of the rightness of Y's being promoted in connexion with or in virtue of his having been promised, his having fulfilled the conditions, etc., is an urging, obliging, imperatival thought issuing in the agent's promoting Y. This makes them all actions (as distinct from causes) directed upon Y's right passion. But it also makes them all alike. And they are not all alike; for example, they are not all the keeping of the promise. In addition each has a

¹ That of X himself in the case of (e) is correlative to a different right passion of Y.

further individual organisation which differentiates it from the rest, and constitutes its own peculiar rightness. (This shows that the rightness of an action cannot consist simply in aiming at and in 'producing' right or good passions or effects or results.) Where the rightness is that of the keeping of the promise (a rightness which X alone can contribute to the Universe), the further factor is this: the thought in X that *he* has promised and that *he* ought to promote issues in X's promoting Y; thus X's having promised issues in X's promoting Y, or is connected with it by a lived or living, enacted or enacting, unity; the two form a structure in respect of which there is active rightness; X's promoting Y is right with the rightness of the keeping of the promise, as an element in this structure. But the promoting of Y, whether by X or by some one else, can be an element in a different structure, in respect of which there is a different rightness, as we have seen, or a wrongness (though Y's being promoted may all the time be an element in the same right passion). Promoting Y is by itself neither right nor wrong. Of course, it can be considered by itself and is identical in all the alternative cases. Nor is it true, as might be urged by some, that thus considered, it is merely a physical event. For it is intended, willed, chosen, by an agent in all the alternatives, and it may even be called an action. But it is never willed just by itself (in other words, there must be a 'motive'); and it should not be called *the* action. The identity in question may be relevant for some purposes, but it is not relevant to the consideration of rightness. For if action is a kind of thought, rightness is a kind of truth or is analogous to it. Thus, even if in all the alternatives the promoting of Y were an element in right structural wholes, to say that the promoting Y is by itself right is like saying that just because " $2 + 2 = 4$ ", " $2 + 2 = 6 - 2$ ", " $2 + 2 = \frac{1}{2}$ ", are all true judgments, therefore " $2 + 2 =$ ", an identical piece of thought in all these judgments, is by itself true. Since the promoting of Y can be an element in a definitely wrong structure (*e.g.*, when X, forgetful or careless of his promise, promotes Y merely to spite one of his partners), the stricter analogy would be found in the statement that, because the above mathematical judgments are all true, and in spite of " $2 + 2 = 6$ " and " $2 + 2 = 17$ " being false, " $2 + 2 =$ " is by itself true.

Still, the promoting of Y is identical, and the identity is relevant for one consideration, a consideration which has already emerged. Only the right actions which keep in view (in the sense already explained) the rightness of Y's passion

are correlative to it, and are related to it not merely as causes but as the actions of agents intending, meaning, willing Y's passion in and because of its rightness. But other actions both right and wrong or parts of such actions may be related to the passion or part of it without having any consideration of its structure or rightness. They are then related simply as causes or instruments. Considered simply as a cause or instrument, the promoting of Y is in all cases identical. In all cases it is causative or instrumental to Y's being promoted. Not, of course, that X or any other agent ceases to act as an agent. In all the cases we have considered he means, intends, wills, Y's being promoted, and in relation to this he is an agent. But as regards its connexion with Y's having been promised, etc., that is, as regards the whole structure in respect of which there is rightness, he is as blind or indifferent and as purely causative or instrumental as the weather or the sea. So in relation to the building as a whole the workman is an instrument replaceable sometimes by machinery, while the agent is the architect or owner. *Domus aedificatur fabris ab architecto vel a domino*, we say in Latin. So Constantine's act may have been merely a cause in the spreading of Christianity, or an instrument in the hands of Providence. So the hollow, egotistical, but able, statesman on whom the salvation of his country depends, is a cause as regards the rightness or goodness of that salvation of which he is unconscious or careless, just as is the sun on which the salvation of the country depends no less ; or he is an instrument in the hands of better but less able men who guide his abilities to good ends, or in the hands of Providence. But instrumental or merely causative in some relations to some passions are all men, the greatest, the noblest and the wisest. And in relation to the whole of history or to any long portion of it, if it is a structure or unity in respect of which rightness is predicable, we are all instruments and causes, since we do not as a unity or structure plan or envisage it.

But we must be thorough with our notion of instrumentality or causality. In that respect in which an agent is just an instrument or cause he is no different from any other instrument or cause, as is clearly recognised by Latin grammar and by Aristotle in his theory of slavery. For the agent's agency, i.e. his thinking and willing, not being directed upon the structure or the rightness or goodness of the passion, is irrelevant and accidental to it. Whether the cause or instrument in question is a storm or an agent (provided he stands merely in an instru-

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mental or causal relation, as explained) makes no difference to it. On the other hand, the rightness or goodness, the wrongness or badness, of the passion or effect makes no difference to the causality or instrumentality of the causal or instrumental thing or person or action in question. By calling the latter right or wrong, we should indicate no more than that it is a cause or instrument, and a cause or instrument in exactly the same way in both cases. We should not convey any further information, as for example, that the action or agent is morally good or bad, praiseworthy or blameworthy. We should be using a superfluous word or *vox nihili*, as we are not when we call 'gold' a certain substance causing certain effects in an experiment, where 'gold' means more than 'the cause of these effects'.

I find it therefore hard to understand why those who hold that the rightness of an act depends not at all upon its motives, but only upon the consequences or effects it causes, all and however remote or indirect, and that a judgment of rightness is not a judgment about the agent (his moral goodness or praiseworthiness), yet insist that the act is willed or voluntary or an act or 'right,' facts which are relevant only when we are going to judge about the agent. The sum of the consequences of the eruption of Mt. Vesuvius which destroyed Pompeii and Herculaneum is what it is (though it is not yet complete): good or right, let us say, as a whole, and it is this whether Vesuvius is a mountain or a person. Suppose that Vesuvius is a god, but with only human foreknowledge, who intended and willed his own eruption (which is therefore an act or part of an act) and also the disappearance of Pompeii and Herculaneum. Still he did not keep in view, intend or will, the sum of consequences as a whole nor the rightness or goodness which is in respect of that sum, so that our knowledge of this is no knowledge about him as an agent. The relation of Vesuvius the god to this rightness or goodness is exactly the same as the relation of Vesuvius the mountain. If the action of the god is to be called right, then the action of the mountain must also be called right. If Ethics is the study of the 'rightness' (*i.e.* causality) of a mountain, then I conclude it is a study of causes exactly as Physics is, and is not a "normative" science like Logic or *Æsthetics*.

Neo-intuitionists, on the other hand, hold that the act is right irrespective of both its motive and its consequences. But, to return to my instance, the act in question cannot be the promoting of Y or X's promoting Y, and if it is anything else, it must include motive. By the act then they must mean Y's being promoted, which they consider not as an effect or consequence

or result of, but as identical with, the promoting of Y. Now Y's being promoted can loosely be called right and identically right, irrespective of motive, in all the alternatives. That is to say, in all the alternatives it is an element in a structure in respect of which there is a rightness irrespective of the agent's motive. Y's passion is the only thing

they can mean. You can predicate rightness either of action (X's) or of passion (Y's).¹ But certainly not of what is neither.

Rightness is predicated in respect of history. When are we justified in isolating a bit of history, treating it as an individual and separating it from the rest which we call consequences? (Strictly speaking, the physical movements, changes or actions in the agent's own body are 'consequences' which normally follow, but in pathological cases do not follow, the *fiat* of his will.) We are justified when the portion of history has a certain individualising unity, structure or principle. This latter can be found in the agent's life (X's); but then the piece of history in respect of which rightness is to be predicated cannot be just X's promoting Y any more than " $2 + 2 =$ " can be the piece of thinking in respect of which truth is to be predicated. Or it can be found in the patient's (Y's) life; but in this life X's promoting Y does not enter at all; what enters is Y's being promoted, which is not an action but an element of passion. It is this and only this which, in its context, is right irrespective of motives, because irrespective of agency. Also irrespective of consequences. For I am assuming (not without anxiety) that, starting from a certain point in Y's life and stopping with his being promoted, we get a structure or unity constituting that portion of history into an individual just as a single judgment is an individual. I conclude, therefore, that when Neo-intuitionists speak of actions which are right irrespective of motives and consequences, by actions they mean passions or elements of passions, and that when they say that Moral Philosophy ought properly to study this kind of rightness, they, more than anyone else even, mean to confine Moral Philosophy to the study of passive rightness.²

¹ Can we also predicate rightness or goodness in respect of a unity between X's acting and Y's suffering which is like the unity between X's having promised and X's promoting Y? See *infra*.

² Perhaps further light can be thrown on 'passive rightness' by considering a possible analogy: A's thinking life is 'passive' in respect of truth when he reads, understands and accepts the true judgments which B is making. His æsthetic life is 'passive' in respect of beauty when he appreciates (enjoys) the beautiful works of art which B has made.

We can, by careful selection, find passions whose rightness is not wholly constituted by (though it is correlative to) the rightness of actions, and so is not constituted by and is independent of motives, and I have tried to select an instance. But what applies to my instance certainly does not apply to all passions, nor perhaps, as I have urged, to *all* the rightness or goodness of any passion. My analysis was, however, necessary to do justice to common speech and to the Neo-intuitionist argument based on a misinterpretation (as I think) of that speech.

I have tried to give at least what I can grasp of *Prospective* Neo-intuitionism. But to give the latter adequately *consideration of right.* and sympathetically one should analyse, not, as I have done here, the retrospective consideration of actions enacted, but the prospective consideration of actions to be enacted. "In all the alternatives given," the contention will run, "the answer to the question what X ought to do will be that X ought to promote Y, that X's promoting Y is the right action, and not that X ought to promote Y from the general or specific sense of obligation, which he may not have at all or not have operatively at the moment. Therefore X's promoting Y is right, irrespective certainly of the motive of obligation, which is the motive you have chiefly argued about." To this point, as I have dealt with it at length elsewhere, I must here answer, briefly and therefore rather dogmatically, that: (1) The only justifiable question for me is, not "What ought X to do?" but "What ought *I* to do?" This latter, I see, I can ask as a *real* question only when I am already acting under the urge or criticism of the sense of 'ought' or of obligation, which is therefore accessible to me and from which in fact I am expecting the answer and a further urge or the motive. (Just so I can ask a real mathematical, philosophical or artistic question, only when already engaged in mathematical or philosophical thinking or in artistic creation.) It would therefore be untrue of me to say that I have not got the sense of obligation. It would also be absurd or contradictory of me both to urge that I am not a moral agent (have not got the sense of obligation) and at the same time to engage in moral reasoning by pleading this or anything else as morally relevant. I could only mean that I do not see this particular thing (*e.g.*, my promoting Y) to be my duty. (2) "What ought X to do?" does in fact either mean (α): "What ought I or any rational agent to do in X's circumstances?" or "What practical thinking (*i.e.* thinking which is doing) would have practical truth (*i.e.* rightness)?" I

cannot add: "one of the circumstances being the absence of the sense of obligation"; for this would be like asking: "What ought I (or any logical mind) logically to conclude from these premises, if I were an idiot or a stone?" Or it means (β): "What ought I, as one of the guardians of right passions or 'rights,' to do with X *as an instrument*, if I cannot appeal to his sense of obligation, towards the securing of Y's right passion?" (Of course, I cannot force X to *do his duty*, *e.g.*, to enact that which alone can be called the keeping of the promise, any more than I can force him to think truly.)¹

¹ Common sense undoubtedly holds that we ought to act from prescribed motives; for it says, not that we ought to do right actions *simpliciter*, but that we ought to keep our promises, etc., i.e. to do what we have promised just *because* we have promised or from the obliging consciousness that we have promised. The "*because*," as usual, indicates the motive and not merely, as Neo-intuitionists seem to think, the ground of obligation. Though, for that matter, the ground of obligation is that which we hold should oblige or be an obliging motive.

(*To be concluded.*)

II.—THE SUBJECT OF ALL JUDGMENTS.

By D. W. GOTSHALK.

I.

IN this essay I wish to examine the familiar claim that Reality (the entirety of the real) is the subject of all judgments. Previous discussions of this claim, as it seems to me, have been weighted with irrelevance. By and large, they have been merely discussions of Monism *vs.* Pluralism;¹ or, again, of this, and of the relation between finite souls and the Absolute.² The first issue, Monism *vs.* Pluralism, I believe and will try to show,³ has little or nothing to do with the real question except under implausible premises and assumptions. The second issue, it is admitted, is but a variant of the first: it is the question whether finite souls are ultimate individuals in intention and ideal, as the first is the question whether these souls (and any other finite reals) are ultimate individuals as substances.⁴ If then the first issue proves to be irrelevant, the second may be pronounced to be so equally.

I shall endeavour in this essay chiefly to show: (1) that Reality itself is not, *prima facie*, the subject of all judgments; (2) that the arguments employed to uphold the claim that, despite appearances, Reality itself is the subject of all judgments, fail to do this; and (3) that much indeed that has been said by those who argue that Reality itself is the sole subject, says, strictly interpreted, the very opposite. In doing this, I hope to make plain, not only that the position here under examination is unevident, unproved, and denied even by those who affirm it, but also that the *prima facie* or naïve view as to the subject of judgments is, after all, the correct view, and the one which we are forced to adhere to.

¹ Bosanquet, *Logic*, ii., chap. viii., contains probably the best known of these discussions. But see the references given there.

² *Life and Finite Individuality*, *Aris. Soc. Proc., Supplementary Volume*, i., p. 75 ff. See particularly Bosanquet's essay, which sets the whole discussion.

³ Below, II. (iv).

⁴ *Life and Finite Individuality*, p. 76.

II.

Our first point, that Reality itself is not, *prima facie*, the subject of all judgments, I believe is obvious. A person says, "This table is wobbly". To all appearance, I take it, he is saying something about this particular table. *Prima facie* he is judging it and not the whole of reality which includes it; for he is saying that it, and not the entirety of the real, is wobbly.

But immediately (to pass to our second point) we are met with a volley of arguments, all of which claim to show that this naïve or *prima facie* view of the matter cannot be final. These arguments, I believe, demand careful consideration. Roughly, they reduce to four, which might be called respectively the logical, the ontological, the epistemological, and the meta-physical arguments. In the remainder of this section I will set down briefly the essential features of each of these arguments, and weigh each argument critically with a view to determining whether it sustains the claim that Reality itself is, after all, the subject of every judgment.

(i) The first argument, the logical, is based on the truth-claim of judgments. The argument is succinctly, if not unambiguously, stated in the following quotation: "All judgments without exception claim by their form to be true. The truth is the whole, and they thus claim to exhibit the whole".¹ Significantly, the author of this argument adds to the last sentence in this quotation: "which they transparently fail to do".

The two premises of this argument, first of all, require a brief examination. The first premise states that a judgment by its form claims to be true. Let us allow this.² But what, let us ask, is this form? Ordinarily, I suppose, most would assume it to be S is P . But this, we are instructed, is false. "The current formula S is P —is false. R in S is P , or R as S is P , . . . is the formula we want."³ This correction, I think, raises no serious objection. The R which is in S , or is as S , is, after all, R limited to S ; *i.e.*, it is really S . And the new formulæ predicate the characteristic (P), which the customary formula

¹ Bosanquet, *Knowledge and Reality*, p. 179.

² Those who say that the judgments in pure mathematics, for instance, do not claim truth at all, might not allow this. To decide their claim would require a long digression. Suffice it to say, that if the claim was true, it would merely add a new difficulty to the difficulty which we hope to point out already embarrasses the present argument sufficiently; and if the claim was false, the argument under examination would remain unaffected.

³ Bosanquet, *Science and Philosophy*, p. 94.

predicates, of this fundamentally identical subject. Hence the new formulæ are, in different terms, the equivalents of the customary or ordinary formula. If they are what are wanted, we need not balk at them.¹ The second premise also requires a brief comment. As it stands, it is ambiguous. It may mean, either that truth is Reality, the Whole itself, or that truth is the whole system of truths, which exhibit and constitute one aspect of the Whole which is Reality. Now the latter, not the former, is, I believe, what is meant. For, in the view of the author quoted, Reality seems to be more than mere truth, or knowledge.² And, furthermore, if the premise meant that truth is Reality, the Whole itself; then the conclusion should

¹ That is, we need not, if we are content with the ordinary formula, S is P , and do not care to replace it with some other. The introduction of such another formula, like the denial that all judgments claim truth, would, I think, only cause unnecessary digression. The present argument can be effectively criticised without it, and I will therefore take the liberty to be content with S is P .

The new or corrective formulæ above, it should be noted, are not equivalents of such formulæ as, R is such that S is P , or R is such that in or at S it is P . The former pair are forms of assertions about R -as- S , or R -in- S ; i.e., about R as limited to a finite existent (this table). The latter pair are forms of assertions about R as not so limited but as infinite. Not only that. The formulæ predicate entirely different characteristics of their different subjects. The former pair predicate the characteristic P of their subjects (R -in- S , R -as- S). The latter pair predicate of their subject R the characteristic of being-such-as-to-allow- P -to-be-truly-predicated-of- S , a characteristic quite different from mere P . Thus, in predicate as well as in subject, the corrective formulæ cited in the text and the formulæ, R is such that S is P , and R is such that in or at S it is P , are very different, and hence, in total assertion, they are not at all equivalents.

One important consequence of this should be noted. If the formulæ cited in the text are the true forms of ordinary judgments and, as our philosopher says, the ones we want, then, since they are not the equivalents of the other pair, ordinary judgments, such as "This table is wobbly", do not have the form of this latter pair; i.e., they do not have the form R is such that S is P , and R is such that in or at S it is P . This, I believe we can see, is true. The latter formulæ are not the forms of ordinary judgment but of a (partial) implication of them. That is, when one says, "This table is wobbly", he is not saying that the Universe as a whole is such that this table is wobbly. He is merely saying that the table is wobbly, although no doubt he is implying by his assertion that the Universe, as including and surrounding the table, is of such a sort as to allow the table to be as it is. In short, the formulæ, R is such that S is P , and R is such that in or at S it is P , are not the forms of ordinary judgments as such, but forms of an assertion about the Universe which may legitimately be made on the basis of ordinary judgments AND of our general knowledge of the Universe.

² See, e.g., *Logic*, ii., p. 322.

have read : " they thus claim to be the Whole ", and not as it does : " they thus claim to exhibit the whole ".

The present argument, in the light of these comments, then reads : " All judgments without exception claim by their form —R in S is P, or R as S is P—to be true. But the truth is the whole system of truths, and this exhibits Reality. Hence all judgments, by claiming to be true, claim at the same time to exhibit Reality."

Let us allow that the whole system of truths exhibits Reality. Still I think the above argument is demonstrably false. Its premises are completely discordant. For instance, if premise two is really correct and truth is simply the whole system of truths, then a judgment by its form (R-in-S, or R-as-S, is P) does not claim and cannot be said to claim truth, and premise one is false. For by its form a judgment does not claim to be total truth ; it merely claims to be truth about a limited subject of truth. Or, more explicitly, by its form a judgment merely claims to be about R limited to S, and claims that R limited to S is any correct particularisation of P ; and it does not claim to be about R not limited to S, nor claim that R so limited is *merely* any correct particularisation of P. Conversely, if premise one is strictly correct, then premise two is not necessarily so. For if a judgment by its form may rightfully claim truth, then, since R-in-S, or R-as-S, is P, which is admittedly its form, does not claim to be total truth but merely truth about one possible subject of truth, truth need not necessarily be the total system of truths, as premise two claims it to be.

Accordingly, the two premises of this first argument, clarified and freed of ambiguity, do not fit. If the second is strictly true, the first is false. If the first is really true, the second is not necessarily so. In either case, the premises, taken together, are disharmonious and incoherent, and, because they are so, they cannot support the conclusion drawn out of them. The conclusion, that judgments merely by their form and truth-claim exhibit or claim to exhibit Reality itself, is therefore unjustified, and invalid.¹

(ii) The second argument, the ontological, is based on a characteristic alleged of the existence of realities, their existential continuity. In most general form, the argument is this : every judgment qualifies a reality ; but every reality is continuous with the whole of reality ; therefore, every judgment

¹ The counterpart of this first argument, that judgments by the nature of their content may be said to claim to exhibit Reality, is examined below, (iii), under the epistemological argument.

in the end qualifies the whole of reality. To quote : a judgment, such as a judgment of Perception is, in appearance, about "some given spot or point in sensuous contact with the percipient self. But, as all reality is continuous, the subject is not merely this spot or point. . . . Every definition or qualification of a point in present perception is affirmed of the real world which is continuous with present perception. The ultimate subject of the perceptive judgment is the real world as a whole, and it is of this, in judging, we affirm the qualities or characteristics."¹

It seems to me doubtful, in the first place, that in ordinary perceptive judgment we are usually judging some point or spot. What usually we are judging, I believe, is some existent (this table) presented to us through many points or spots. But let us suppose this is otherwise, and let us also suppose that the spot or point we judge is continuous with the whole real world. What real difference does that make ? I say : "This is a table". Apparently I am judging a spot, continuous we may suppose with the whole real world, as a table. But am I not also in the end and in reality judging this spot, not the whole world of spots ? It is understood that I am judging the spot here, not as a sample of other spots, nor as a sample of the whole continuum of spots, but as the spot it is. That is, my judgment is, "This spot as the spot it is, is a table". Under such circumstances, it seems to me it could be fairly argued that, continuity or no continuity, I am in reality, and not only in appearance, judging the spot and nothing but the spot, when I speak.

Against all this, however, the argument here has much to say. It points out, first of all, that where you have a continuum, you cannot draw a hard and fast line between a spot in it and the whole continuum. Who has ever really set the boundaries of a finite thing ? In the second place, it insists that a whole, as a true whole, lives through its differences (here, the different spots) and its differences live through it. You cannot separate the one from the other without destroying both the whole and the differences. From these points it passes to the conclusion that, when you judge a spot even as the spot it is, you cannot affirm that your judgment is confined exclusively to this spot, and that it can be interpreted as in some real sense a judgment not of the mere spot but of the whole continuum.

Now the strictures laid down in this rejoinder I think we may admit. That is, I think we may admit that it is difficult to mark off a finite thing, a spot, a difference ; and that it is impossible

¹ Bosanquet, *Logic*, i., p. 73.

existentially to separate a whole and a difference without in a sense mutilating the whole and destroying the characteristic function of the difference. In any case, let us allow all this. Is the conclusion of the above argument forced upon us by these admissions? I believe not. For we may ask: is it argued that the continuity of a difference and a whole means the complete identity of the whole with the difference? I do not think this is meant.¹ And I do not see how it could be defended if it were meant, for it would mean—to reduce matters here to a smaller scale—that the defendant would have to show, for instance, that a leg of a table, as existentially continuous with the whole table, was the whole table; *i.e.*, the whole table itself was contained entirely and without remainder inside the leg. Yet if this is not what is meant, *i.e.*, if it is not meant that continuity of a difference within the perceptual whole and the perceptual whole means complete existential identity of this whole with that difference, then it cannot be denied that whenever we really judge a difference as the difference it is, we are in reality judging, not the whole, but just this difference. Let us freely allow that it is hard to mark off and impossible to cut off a difference from its whole. Still, it is permissible to insist that unless continuity of a difference and its whole means complete existential identity of the whole with the difference, which it clearly does not, then, whenever we judge a difference as the difference it is, we are making a judgment whose real subject is not the whole, but just that difference.

The present argument then is a failure. Continuity of a whole and a difference does not mean complete existential identity of the whole with the difference; and, since this is so, a judgment whose initial subject is a difference as the difference it is does not shift, under continuity, to a subject which is the whole of the differences. The present argument is in essence the claim that on account of continuity such a shift must be admitted to have taken place. But on account of continuity such a shift does not take place and need not be admitted to have taken place, and therefore the present argument is in essence a failure.

(iii) The third argument, the epistemological, is based on a characteristic of judgments as constituting knowledge. The argument begins with the assertion that every particular judg-

¹ Compare, for instance, the next to last quotation in this essay, which states that the whole obviously cannot be manifest as a whole at any point throughout the finite sequence—a sequence which I presume we may suppose is in some sense continuous.

ment is relative to the whole of knowledge. As a particular, it is abstract and conditional, an affirmation "subject to being a part in the whole, and the consciousness of this reservation is essential to the affirmation."¹ Now, as subject to being a part in the whole, it is subject to modification by the whole, so that, in the end, it not only enters the whole, but the whole enters into, corrects, and determines it. Thus, each particular judgment, as in the end taking the whole system of judgments into it, is ultimately attached to that to which the whole system is attached—viz., Reality.

Now the inter-connection between judgments we need not deny. We may even allow that any judgment modifies all others, and all others do so to it, although it is difficult to see how any decisive positive proof of such a view could be given. Yet, allowing all this, I think it is quite insufficient to sustain the conclusion here drawn from it. A simple example, first of all, will suggest this insufficiency. A judgment of a man's character may be modified by more knowledge of his life and circumstances, and by more knowledge of the world of people and things, and even of the universe. And, furthermore, as one's original judgment of the man's character is thus brought into connection with the total system of knowledge, we may allow that, as evidenced by its continuous modification, the whole system of knowledge somehow enters into this particular judgment. Still, the judgment was originally about the man's character, and it seems clear that, after modification, it is still about it. At least it might be fairly argued that modification of the particular judgment by the whole, far from dislodging it from its original point of attachment, has merely made it more adequate to the point to which originally it was attached.

Against this, however, the present argument insists that if a judgment is modified by the whole system of judgments, as we say this one is, then the whole system of judgments itself has really entered into the judgment, and the judgment, despite appearances to the contrary, has as a consequence really broadened out and become attached to that to which the whole system is attached, viz., Reality.

This rejoinder, I think it must be said, rests upon an error. It holds, in essence, that in modification the whole system of judgments itself enters a particular judgment. Actually, however, when a system modifies a particular, what really enters into the particular is not the whole system itself, but implications

¹ Bosanquet, *Logic*, ii., p. 315. And see *Essentials of Logic*, pp. 27, 33 ff.

from it. The whole system of judgments, being what it is, implies certain corrections in the original assertion. And these implied corrections, or implications, are all of the whole system of judgments that bodily enters into the particular judgment. In view of this, to be sure, the present argument might be sustained under one condition—if it equated a system of judgments entirely with some of the implications from it. Then, it might be correctly said that in modification the whole system itself really entered into the original judgment, and this judgment, as a consequence, took as its subject the subject of the whole system now completely installed inside of it. Needless to add, such an equation would be false. A judgment is an assertion, not merely a consequence of its assertion. And the same is true of a system of judgments. It is a system of assertions, not merely consequences from such a system. Thus, the present argument might be sustained, but only by means of a falsity. It could validly rest on the basis of an equation of a system of judgments with some implications; for then, since implications from the system do themselves enter the particular judgment in modification, it might be validly argued that the whole system of judgments itself had entered without remainder into the particular judgment, displacing its original subject by its own subject. Only under such an equation, as it seems to me, could the essence of the present argument be preserved. And since such an equation is false, it follows that the present argument, to be true, would have to be grounded in essence upon falsity.

(iv) The fourth argument, the metaphysical, has been the most prominent in previous discussions of the claim here examined, and has bred the debates over Monism *vs.* Pluralism, and over the relation between finite souls and the Absolute, mentioned at the start. As its main premise, this argument may be said to have the dual assertion that the true subject of judgment can only be a substance and all that is not substance is not subject but predicate. It then seeks to show that nothing short of the Absolute itself can truly be said to be substance, and from this it concludes that Reality itself, or the Absolute, is the only true subject¹ and all other so-called subjects are not subjects but predicates, "connections of content within the real individual".²

The argument, then, starts with a dual assumption or first premise: (a) that only substance can truly be subject, and

¹ Bosanquet, *Logic*, ii., pp. 252-253. And compare Bradley, *Logic*, *e.g.*, i., p. 51.

² Bosanquet, *loc. cit.*, p. 258.

(b) that all that is not substance is not subject but predicate. Now it seems to me that, if we grant this premise, we must enter into the difficult debate over Monism *vs.* Pluralism, one substance *vs.* many, and suffer its attendant miseries. Hence, it behoves us to examine this first premise with great care, to determine whether it is strong enough to force us to consider the argument beyond it.

The first part of the premise, and the main part, (a) that substance only is subject, seems to me very questionable. What is meant here by substance? The answer is: the completely self-existent, the permanent, the completely self-dependent, for, only if this is meant, is the second premise, that the Absolute alone is substance, at all admissible. Now let us allow that this is the true meaning of substance, and let us even allow that the Absolute alone is substance, the second premise. Still, may we not ask: why cannot a quality of this substance be a true subject? If the argument replies, as I think it must, that this quality cannot be such a subject because it is not a substance and not self-dependent, then, allowing this to be answer enough, may we not ask: does not your very position here, as involving, *e.g.*, the judgment, "This quality is not self-dependent," make the quality the true subject of a judgment? It seems to me that if the present position has a reply to the question: why cannot this quality be a true subject? this reply, at least in its full statement, does involve the above judgment. And, further, it seems to me that the real subject of the above judgment, or at least that to which the assertion is really attached and of which it really claims to be true as it stands in any full statement of the position which makes it, plainly is this quality and nothing but this quality. Thus, the position here under criticism clearly involves in the statement of its full meaning a judgment which, if it is to be really true as it does stand in the present position (and it must be, so far as I can see, if the present position itself is as such to be really true) involves that something besides substance, namely, quality, can be the true subject of a predication. Again, take another judgment clearly involved also in the full statement of the present position: "Finite things and finite events, as finite and dependent, are not true substances". Can it be denied that this judgment is a judgment, or that it is really involved in the present position when it takes upon itself to answer the question: why cannot finite things and finite events be subjects? I do not see how it can. Then, can it be denied that this judgment is a predication not of Reality but of finite things and finite events as finite? If it can; if it is said that the

predication here ("are not true substances") is really attached to Reality itself; then Reality itself is admittedly not a true substance, and the present position denies itself. But if it cannot; *i.e.*, if it cannot be denied that this judgment is a predication of finite events and finite things as finite; and I believe it cannot unless the present position is ready to deny all judgments clearly involved in it; then finite things and finite events, as finite, are admittedly, on the present position, true subjects of a predication, and the present position once again denies itself. To summarise: the position in part (a) of the first premise of the present argument, if stated at any length, involves judgments which at once are clearly involved in the present position and, as about what to be true and to be true parts of the present position they must be about, are judgments whose subjects are not substances in the sense laid down, but qualities, finite things, and finite events. In short, part (a) of this first premise, (substance alone is subject), in its full statement obviously involves judgments which, as they stand in this statement, show it to be false.

As to part (b) of this first premise, (that all that is not substance is not subject but predicate), it seems to me to be equally questionable with part (a). Indeed, if the term predicate means here what the philosophers under criticism have insistently taught us in the body of their logical works that it does mean, this part of the first premise is even more evidently questionable than is the first part. For in the logical doctrine of these philosophers, a predicate, I believe, is understood as the total affirmation of a judgment; or, better, it is understood as an ideal content referred in judgment to an existent reality.¹ Now, certainly if this view of predicate is true, it is illegitimate to say that all that is not substance in the sense laid down, is predicate; *i.e.*, that every dependent reality, for instance, a finite thing, or a finite event, is a predicate. A finite thing (this table), for example, is not a mere piece of meaning, or an ideal content referred by a judgment to an existent reality. If anything at all, this thing is itself an existent reality. It is a *that*, and not a mere *what*. And the same is true of a finite event; *e.g.*, the Battle of Waterloo. Of course it may be replied to this that the term predicate in this premise is used in a very broad sense in keeping with the sort of argument here advanced. Namely, the term here is used in a metaphysical sense, as the argument here is a metaphysical argument. It is taken to connote, not

¹ See, *e.g.*, Bosanquet, *Logic*, i., p. 77; *Essentials*, p. 108.

merely a strand of meaning (logical predicate), but any fabric of content; and hence, it is legitimate on the present position to call finite things and finite events predicates, for, after all, they are fabrics of some sort of content. One successful rejoinder to this might be to point out that this reply, by reducing finite things and events to mere contents, metaphysical *whats*, violates a fundamental tenet rather insistently taught us as part of the general philosophical position of the writers here under criticism; namely, that things and events, as real, are *thats*, as well as *whats*. But perhaps it will be sufficient for our purposes to observe, first of all, that the term predicate *is* used in the logics of our writers as a contrast-term of subject, and, secondly, that it is used in the first premise of the present argument as a contrast-term of substance primarily because our philosophers believe that every true subject is a substance. Since, however, this latter belief, as we have already seen, is false if the present position, as fully stated, is to be true, the use of the term predicate for anything not in the present sense a substance has lost its primary justification. Secondary justifications no doubt may be brought in and debated back and forth. But once it is clear that every true subject is not necessarily a substance, it becomes doubtful whether there is any point in going further with the assertion that everything that is not a substance in the present sense, is really a predicate.

The first and crucial premise of the present argument, on both of its sides, then, fails to maintain itself. And without entering into the debate over Monism *vs.* Pluralism, one substance *vs.* many, we can see accordingly that the present argument cannot carry. Indeed, even supposing there was only one substance, the Absolute, the first premise of the present argument together with this assumption, as we have already seen, clearly involves in the full statement of its meaning judgments which as about what to be true and to be true parts of the present position they must be about, show that there may be as many true subjects of predication as there are finite events and finite things and qualities in the Absolute. In short, the doctrine of one substance, plus the first premise of the present argument, does not involve one true subject of predication and all else predicates, but innumerable subjects, and subjects which not only, on the relevant logical teachings of our philosophers, are not and cannot be called predicates, but, because subjects, have lost any relevant appropriateness they might have had for being called predicates. Accordingly, the first premise of the present argument, when what is obviously involved in it is brought out and critically

examined, clearly denies itself and thus shows itself to be false. And since the present argument could be valid only if both of its premises were unquestionably true, we may be certain, without further examination, that the present argument is invalid and false.¹

III.

Much that has been said (to pass to our third point) by those who argue that Reality is the sole subject, says, carefully interpreted, the very opposite. I will submit a few quotations.

"The subject in a judgment is never Reality in the fullest sense. It is reality taken, or meant to be taken, under certain conditions and limits."² I submit that, strictly interpreted, this says that the subject in judgment is never Reality itself, the infinite entirety of the real, at all. For the subject in judgment is here admitted to be limited and conditioned; but Reality itself, the infinite entirety, is by definition infinite and unconditioned. In short, Reality itself, and the subject in judgment, if the above statements are to be believed, are, in very truth, poles apart. Statements having import identical with that of the above quotation are the following: "The real subject in judgment is always Reality in some particular datum or qualification."³ "Reality (to repeat this) as the subject

¹ The foregoing four arguments, I believe, are the main arguments employed to establish the claim herein examined. But variants of each occur. I will cite one and briefly examine it, by way of illustrating the general character and strength of such variants.

A predicate, the argument begins, is always, as our opponents agree, a universal. But the individual is "the true type of universal". Hence, all individuals are predicates—except, however, the Absolute Individual, which as a "wholly self-complete and self-existent individual, could not be a predicate of any other individual". (Bosanquet, *Logic*, ii., p. 257.)

This argument, which is a variant of the fourth stated above, has obviously some of its defects. But besides these, it has fundamental weaknesses of its own. What, for instance, does the term universal, the key or middle term of the argument, mean? Abstract universal? This, I believe, it does mean to the opponents who agree to the first premise, as indeed Bosanquet himself points out. Well, if it means abstract universal, then premise two is false, for the individual simply is not the true type of abstract universal, nor indeed an abstract universal at all. Does, then, the term universal mean concrete universal? If so, premise one is false. For Bosanquet's opponents do not agree that a predicate is always a concrete universal, but that it is an abstract universal, as (to repeat) he himself points out. In brief, fasten down the meaning of the key or middle term of the above argument, the term universal, and one premise instantly becomes false. And if one premise is false, the conclusion obviously is false.

² Bradley, *Essays*, p. 32.

³ Bosanquet, *Essentials*, p. 41.

of our judgment is always a selected reality. . . . It is Reality, as our whole world, but it is also *this* reality.”¹ “All explanation is *within* the universe, not *of* it.”² And so on.

Again, the already quoted sentences—“The current formula S is P—is false. R in S is P, or R as S is P, . . . is the formula we want”—constitute further evidence on this third point when taken in conjunction with such statements as the following: “I should take it as obvious that the whole cannot be manifested as a whole at any point throughout the finite sequence”,³ and “Now in every finite centre (on our view) the Whole, immanent there, fails to be included in that centre”.⁴ Such statements as the latter two make manifest that R as S, or R in S, is not Reality itself, the Whole. The Whole, these statements say, fails to be included or to be manifest in or as S. But if R as S, or R in S, is the true subject of judgments as the first statements say; then Reality itself, the Whole, is not itself the true subject of judgments.

One could easily produce more statements than the preceding as evidence that the claim here examined is often retracted by those who make it and argue for it. But the few already given present the essence of the matter. They are, I think, enough to show, together with the arguments quoted and refuted in section two, that the claim here under examination is neither sustained by argument, nor affirmed without retraction. These complete the three points we set out to show, and indicate our conclusion. The naïve view, that the subject of ordinary judgment is not Reality itself but merely and simply that limited situation within Reality engaging attention, is, we must conclude, the view we must adhere to. This view is *prima facie* the plausible one. And the view which is claimed to supersede it is not only unevident and unproved, but it is sufficiently abandoned for the naïve view by the philosophers who argue for it, to suggest that even these philosophers themselves are far from sure that it is really the truth.

¹ Bradley, *Logic*, ii., p. 629; italics in text.

² Bosanquet, *Logic*, i., p. 137; italics in text.

³ Bosanquet, *Contemporary Philosophy*, p. 212.

⁴ Bradley, *Essays*, pp. 250-251.

III.—DEDUCTIVE SYSTEMS AND THE ABSOLUTENESS OF LOGIC.

BY EVERETT J. NELSON.

IN his recent work, *Mind and the World Order*, Prof. C. I. Lewis presents a novel, and if true, tremendously important, logical doctrine. In discussing the *a priori* in knowledge, he threatens to undermine that last fragment of rationalistic belief which logicians have clung to in the face of the advance of irrationalistic epistemologies; namely, that logic is absolute, that its principles cannot be meaningfully denied, and so are necessary truths, that every logical principle is consistent with every other, and that each may be used as a principle of validity in reasoning. Lewis does not attack these beliefs severally, but his assertion that there are bad or pseudo-logics, which are logics in the accurate meaning of the term—*i.e.*, have the structural peculiarities of 'logic'—, causes doubt to be levelled against the very foundations of logic as ordinarily accepted, a doubt which, if actually possible, would resolve itself into a complete scepticism, for no standard whatsoever would be left on the basis of which validity could be tested or even have meaning, not even a pragmatic standard, for no standard can have significance without some *absolute* general principle.¹ Now it is not our purpose to lament this 'a priori scepticism', but rather to try to discern what Lewis's doctrine is, and to discover his reasons for believing it; for in the very nature of the case we cannot attempt to disprove it, since in doing so we might from his point of view be guilty of accepting the absoluteness or 'goodness' of our logic, which might, for all we know, be a pseudo-logic. But we do have this much in common with Lewis, that he, at least in other parts of his book, seems to accept the logic we shall use, and appears to believe that

¹ On p. 197 Lewis tells us that 'That which is utterly incapable of any alternative is utterly devoid of meaning'. This proposition would seem to be in his system a fundamental principle, but it by itself, unless by a theory of types it be excepted, dooms itself to meaninglessness unless it has an alternative. What would he say in regard to the law of contradiction, 'Nothing can both be and not be'? To us this law has meaning but nevertheless no alternative.

this logic is good. We shall not ask him by what standard he judges it to be good rather than bad; we shall be content to agree that it is good, for in any discussion the parties must agree on some point on the basis of which to begin to disagree.

It is very difficult to understand precisely what Lewis means by a bad or pseudo-logic. He says, 'A little ingenuity suffices to construct a bad logic in which, reasoning badly according to our bad principles, we always get consistently bad results'. Now I take it that in this statement he is using 'good' logic; and hence I suppose this sentence of his may be restated as follows: 'A little ingenuity suffices to construct a "bad" logic in which, reasoning invalidly according to invalid or false principles, we always get consistently "false" results'. I say 'false' because a conclusion of an argument is neither valid nor invalid, but simply true or false. The term 'validity' applies to the reasoning, not to the premises or conclusion. This statement of Lewis's sets forth a startling characteristic of such a logic. According to ordinary logical principles, we may reason invalidly and still get true conclusions, in cases in which the premises are true as well as in which the premises are false. Moreover, if we reason validly we may get false conclusions, as in the case in which the premises are false. But according to the 'bad' logics, if we reason according to their invalid principles we shall *always* get consistently (whatever that adds to the characterisation) false conclusions. Or perhaps our author means that within such a system of bad logic all our conclusions will be propositions which, if used as principles of reasoning, are according to the old (and good?) logic invalid principles. I must admit that I have not the little ingenuity required to construct such a logic. So let us consider in detail Lewis's illustration, which, be it noted, is the only evidence he presents for the view that such logics are possible. He tells us that 'one family of such systems . . . is determined by the presence in the system of the proposition $q < [p < (p < q)]$, where p , q , etc., are propositions, and $p < q$ represents " p implies q ". . . . 'This proposition,' he explains, 'allows of two distinct meanings of $p < q$, neither of which coincides with the usual one.'¹ What the usual meaning of 'implies' is, he does not tell us. If 'material implication' be it, which I think it is not, then this proposition is true and can be used validly as a principle. Transformed into a tautology by use of Russell's definition of material implication ($p \supset q . \equiv . \sim p \vee q$), we get $\sim q \vee \sim p \vee \sim p \vee q$, which is true. Let us arrange these

¹ *Mind and the World*, p. 209.

terms as follows: $\sim p \vee \sim q \vee q \vee p$. Now, transforming these disjunctions back into material implications, we get $p \supset q \supset \sim q \supset \sim p$, or $p \supset q \supset p \supset q$. If in this last form we replace p by $\sim p$ we get $\sim p \supset q \supset \sim p \supset q$, which is a consequence of *4.74 ($\sim p \supset q \equiv p \vee q$) of the *Principia Mathematica*.

If, however, Lewis has in mind as the usual meaning of 'implies' his own notion of *strict implication*, then he is right in asserting that the principle does not belong to ordinary logic.¹ Moreover, '<' in this proposition does not mean what I have called 'entails'.² But the important point is that this proposition is logically sound in the system of material implication, which, despite its injudiciously chosen name, is sound logic.

Lewis tells us further that 'Such a "bad" logic may be developed logistically from the following formal postulates:

- A. $\neg (\neg p) = p$
- B. $\neg (p < \neg p)$
- C. $(p < q) < (\neg q < \neg p)$
- D. $[p < (q < r)] < [q < (p < r)]$
- E. $(q < r) < [(p < q) < (p < r)]$
- F. $(p < q) < (\neg p < \neg q)$

Why does he call this a 'bad' logic? What is wrong with it? Is there a single principle that is impossible, or false? In answering these questions we must hold constantly in mind that this logic is to be *developed logistically*. All we know about the system in advance is that certain symbols are term variables, and certain others are relation variables. The relational properties any relation must satisfy, if it is to be represented by one of these variables, are determined by the postulates. Or, more specifically, the ranges of the variables are determined by the postulates; i.e., they are systematically defined by the postulates. I can find nothing 'bad' in this system, but Lewis gives us a clue to the reason why he thinks it a bad logic, when he says, 'Postulate F is obviously false as a general law of implication'. Thus he seems to assume that that '<' mark in the postulates stands for 'implies', but this means that he has not taken seriously his assertion that this bad logic is to be developed logistically.

True enough, if < means 'implies', then F is false; but, I ask, what reason in the world is there for supposing that it means

¹ Lewis, *A Survey of Symbolic Logic*, chap. v.

² In 'Intensional Relations' (MIND, Oct., 1930) I defined ' p entails q ' by ' p is inconsistent with not- q ', in which inconsistency is an intensional, not an extensional, notion.

simply 'implies'? If F is to be a member of the set of postulates of a system which is to be logically developed, then the statement that F is false as a law of implication is entirely irrelevant to the issue. Or, conversely, if the statement is relevant, and true, then Prof. Lewis has failed to *develop logically* a 'bad' logic. In that case all he has done is to list a set of propositions (not postulates), the sixth of which is false.

Given the above set of postulates, the thing to do is to ask for an interpretation. Suppose we say that the term variables are to be filled in with propositions. Then we must ask what ' $-$ ' and ' $<$ ' can represent. Let us try letting ' $-$ ' mean the negative of the proposition it precedes. Now what relation can ' $<$ ' stand for? Inspection of F excludes the possibilities of 'materially implies', of 'strictly implies', and of 'entails', for if it were given one of these interpretations, F would tell us that it is symmetric, whereas we know that these three relations are what Russell has called non-symmetric. Suppose we try 'material equivalence'. It is symmetric, and so satisfies F , for the significance of F lies in its making $<$ symmetric. It also satisfies all the other postulates, and also ' $q < [p < (p < q)]$ '. Thus if $<$ be interpreted as 'materially equivalent to',¹ all these postulates become propositions certifiable on logical grounds, and every one of them can be found amongst, or is deducible from, the propositions asserted in the *Principia Mathematica*.

Admittedly following Prof. Lewis, Dr. Paul Weiss too has argued for Lewis's point, by saying that there are 'alternative' logics.² His argument is, so far as I am able to understand his article, that fourteen different systems are possible due to the fourteen different selections or combinations of the elements of a disjunctive tautology involving two terms, excluding the selection that equals zero and also the tautology itself which equals one or the universe. The tautology is $pq \vee p\bar{q} \vee \bar{p}q \vee \bar{p}\bar{q}$. Material implication would be defined by the following selection: $pq \vee \bar{p}q \vee \bar{p}\bar{q}$. Weiss seems to think that we shall get a different logic—and an *alternative* one—if 'implication' be defined by any other of the fourteen selections; e.g., by $pq \vee p\bar{q} \vee \bar{p}\bar{q}$, which we usually express by ' p or q or both'. Another selection is $pq \vee p\bar{q}$, which, according to usual principles, is equivalent to p ; but this too is supposed to be a possible definition of 'implication', which will yield still another alternative logic. All I can see that Weiss

¹ Discussing this matter with me, my friend, Dr. Paul Weiss, pointed out that the interpretation of $<$ as material equivalence satisfies these postulates of Lewis's.

² 'Relativity in Logic', *The Monist*, Oct., 1928, pp. 356 ff.

is pointing out is that we may, for aught anyone can stop us, give to the word 'implies' different meanings—now it is to mean one thing, now another. A mere misuse of words appears to be the magic wand for bringing forth alternative logics, the notion of which is, Weiss tells us, 'one of the most interesting suggestions made in connection with modern symbolic logic'. Indisputably true it is that if I decide to use the word 'women' now for females, and at another time for males, then, if I keep my mind sufficiently muddled, I may be able to delude myself into thinking that there are alternative systems of sex. But what we are interested in is logical structure—not words, but their meanings. Anyone can write a fake dictionary; but not even God himself can make men into women by shifting words, or make what we call 'implies' symmetric by changing names.

Lewis's and Weiss's pseudo-, or bad, or alternative logics—if I understand these writers correctly—are not pseudo-, or bad, or alternative in any significant sense. Anyone will grant that partial systems of logic may be formulated, such that each will not contain all logical propositions; but such systems are only supplementary, not alternative. This queer logical doctrine is due, so far as I can see, to a failure to understand the nature of a deductive system. In the first place, logicians have placed their emphasis on the *deductive* side. Given as assumed premises such and such postulates stated in terms of such and such assumed ideas, then such and such theorems can be deduced from them. This is true, but gives us no more insight into a deductive system than does the theory of the syllogism. The chief significance of such a system from the point of view of theoretical logic lies in the *system* aspect. The postulates of such a system are not merely premises in the traditional sense, but form a coherent, internally related, closed whole; *i.e.*, a *system* in the most extreme sense of the term. The objects in my room, being in a certain order, form a system, some of the properties of which may be stated by a set of true propositions; and from these propositions used as premises, still other true propositions may be deduced. But though we have here some sort of system and the possibility of deduction, we do not have a deductive system in the sense in which the postulates, *e.g.*, in the *Principia Mathematica*, or those of serial order, form a system. The system of objects in my room is not *coherent*; logical and mathematical systems are coherent. The postulates of a coherent system systematically define—*i.e.*, determine the ranges of possible interpretation of—all the variables in the postulates. This follows from the fact that the postulational set is a system of internal relations.

In the second place, apparently a system as a set of uninterpreted postulates—*i.e.*, what Prof. H. M. Sheffer calls a 'system-form'—has been confused with two other things: the set as interpreted, and an interpretation of the set. These points will become clear as we proceed.

So far we have pointed out that neither Lewis nor Weiss has demonstrated that there are alternative or pseudo-logics in any significant sense.¹ Now I wish to show that such systems are impossible, owing to the very nature of 'deductive' system itself. In discussing deductive systems, we shall have to discuss systems of mathematics as well as of logic. It may well be that the apparently alternative geometries—each valid but having 'contradictory' postulates, so we are often told—have suggested the extension of the 'alternative' idea to logic. In what sense this is a sound parallel we shall see. Moreover, it has been contended by some² that logical systems and mathematical systems are not of the same nature, since the postulates of the former cannot be denied without contradiction, while, it is asserted, those of the latter can.

It shall be my aim to show that logical and mathematical systems are intrinsically the same, and therefore that in whatever sense the postulates of mathematics can be denied, so can those of logic; and in whatever sense those of logic cannot be denied, neither can those of mathematics. And as a final result we shall see that there are no 'alternative' systems, mathematical or logical, in any sense in which the term 'alternative' has significance beyond mere supplementariness or difference.

First I shall discuss the nature of system in general, and then show that both logic and mathematics are instances of such a system. In every system we have (1) a given set of elements, a, b, c ; p, q, r , called the K-class(es); (2) a given relation R (or relations R_1, R_2, \dots); and (3) postulates in terms of (1) and (2). The intrinsic nature of a system is best brought out if we consider it as a system-form; *i.e.*, as uninterpreted. In such a case a, b, c ; p, q, r , are *term variables*. This is absolutely all we know about them in advance of the postulates. We do not

¹ Prof. C. H. Langford, in an excellent discussion 'Concerning Logical Principles' (*Bulletin of the American Mathematical Society*, Sept.-Oct., 1928, pp. 573-582), has argued from the analytic nature of logical propositions to the impossibility of alternative logics.

² For example, Dr. Weiss tells us that 'A mathematics states propositions which could be otherwise; if one of the propositions were denied an equally significant mathematical proposition would be thereby created. On the other hand the contradictory of a logical proposition must be false, because the denial of the truth of a necessary truth is necessarily false.' 'The Nature of Systems', *The Monist*, vol. xxxix., p. 440.

know whether they stand for propositions, for points, for spheres, or for what not. Similarly, R (or R_1, R_2, \dots) is a *relation variable*, but for what type of relation it stands we know not—we do not know its relational properties before consulting the postulates. The postulates order these variables in a way which limits the range of the possible values they may take. *I.e.*, the postulates function as *systematic definitions* of the variables. Now this limitation of the range of values is, to use other words, the ascription of certain properties to the variables. For example, in the *Principia Mathematica* $p \supset p$ assigns to the relation \supset the property of reflexiveness. That is to say, the range of the relation variable \supset is limited to reflexive relations. Similarly, $p \supset q \cdot q \supset r \cdot \supset \cdot p \supset r$ further limits \supset to the field of transitive relations. Suppose that to these were added $p \supset q \cdot \equiv \cdot q \supset p$, then \supset would be limited to symmetric relations, and hence could not be interpreted as, for example, material implication. Now in this way every independent postulate prescribes a property to the primitive ideas.

Each independent postulate of a set may be denied without contradiction in the sense that it may be omitted or replaced by its 'negative'. This is true in logic as well as in mathematics. Deny $p \supset p$; *i.e.*, replace it by $\sim (p \supset p)$, and the sign \supset will stand for some relation still, though certainly not for 'implication', for \supset no longer will be reflexive. In geometry the denial of the parallel postulate yields a similar case: the systematic spatial relationships are no longer euclidean, and for that very reason the two systems—the euclidean and the non-euclidean—are not at all contradictory. Or, take the case of the postulates of a series, which are as follows: ¹ (1) $a \neq b \cdot \supset \cdot a < b \cdot \vee \cdot b < a$, (2) $a < b \cdot \supset \cdot a \neq b$, and (3) $a < b \cdot b < c \cdot \supset \cdot a < c$. The first gives to $<$ the property of connexity; the second, the property of irreflexiveness; and the third, transitivity; which properties we discover by examining the postulates. There is nothing to prevent our denying either one (or more) of the three, keeping the others, and forming a system out of them. If we deny the third, say, then the range of possible interpretations of $<$ excludes all transitive relations. Since such a relation as 'before' has the properties defined by the original postulates, 'before' may be an interpretation of $<$. But in case we replace (3) by its contradictory, 'before' cannot be amongst the possible interpretations of $<$.

¹ Cf. Huntington, *The Continuum*, p. 10. Though Lewis and Huntington use the same sign ($<$), no similarity in meaning is intended. This likeness of symbols is logically accidental.

These illustrations set forth how postulates of logic and of mathematics are similar in regard to their capability of being denied without self-contradiction.

Now I shall point out the sense in which neither the postulates of logic nor those of mathematics can be denied without contradiction. This is the case if we take each postulate as a proposition independent of the others. Consequently each postulate contains the primitive ideas *as defined already by it and the other postulates*. In this sense $p \supset p$ cannot be denied, for \supset has already been defined to have the properties of the relation of material implication, say; and one of these properties is reflexivity. So taken, a postulate is a tautology and cannot be denied; but the reason for this is that \supset , say, has already been given the property of reflexivity, and then with this property assigned to it, $p \supset p$ is, so to speak, lifted out of the set.

Exactly the same situation holds in mathematics. Take as a postulate for euclidean geometry the proposition, 'The sum of the angles of a triangle equals two right angles'. Deny this proposition, and a non-euclidean geometry results. But what I wish to point out is that *this* is not the proposition which is an integral part of euclidean geometry. The proposition *in* the system of euclidean geometry is, 'The sum of the angles of an euclidean triangle equals two right angles', which proposition is true and analytic. The former proposition, however, is false, for it has the assertive force of a universal, but as a matter of fact the angles of some triangles do not equal two right angles. Precisely the same is the case of the postulates of serial order. If we interpret $<$ as meaning 'before', and then take (3) out of the set, still keeping this interpretation, (3) cannot be denied without contradiction. Its denial would be, 'Even if a is before b and b is before c , a need not be before c ', which is impossible. 'Before' is transitive, and transitivity is an internal quality of it, and so cannot be denied of it without contradiction. It would be the same as to deny that to be a triangle is to have at least two sides. You can no more deny that the relation 'before' is transitive (*i.e.*, $a < b . b < c . \supset . a < c$) than you can that 'implies' is transitive ($p \supset q . q \supset r . \supset . p \supset r$). But you can 'deny' a postulate in logic (*e.g.*, $p \supset p$) in precisely the same sense as you can deny a postulate in geometry, as we have already explained in detail.¹ Of course, this is not real 'denial'.

¹ The sense in which a postulate of a deductive system may be denied, and that in which it cannot be denied, throw some light on the problem of self-evident axioms in mathematics. Since the construction of non-euclidean geometries, axioms have been out of style and 'assumptions'.

Since postulates in mathematics and in logic state properties of relations, propositions in logic and propositions in mathematics are necessarily true in exactly the same sense and for the same reason; namely, because of a type of definition in which every postulate has as its function the partial (if there be several postulates) or complete (if there be only one postulate) definition of the variables contained in it. Such definition limits the range of the possible number of combinations of meanings in which the various variables may be interpreted. Since the range of any such set of variables does not, so far as I can see, exclude all but one possible interpretation, any set may find more than one interpretation. This means, of course, that the variables in an uninterpreted system are real variables; i.e., the fact of their systematic definition does not entail that they no longer are variables, but rather only that some interpretations of them are excluded.

But it may be asked why it is that we have different systems of geometry which seem to be alternative in a sense in which different logics are not. Intensional and extensional logics are different, but supplementary, whereas euclidean and non-euclidean geometries are different, but not supplementary in the same way. This difference lies in two connected facts: (1) Logics of propositions are *general* in the sense that 'proposition' is taken as generic; but geometries are specific. An euclidean geometry is a certain type of mathematical form, and a non-euclidean geometry is of another type or species of the genus 'geometry' which, if formulated, would be general in the sense that the logic of propositions is general. Similar to the species of geometry, we might have in logic 'a logic of atomic propositions' and 'a logic of molecular propositions'. Then the postulates of these two systems would be somewhat different, comparably to the difference in the sets for euclidean and for non-euclidean geometries.

or 'postulates' have been all the rage. There has been no end of criticising the older mathematicians for thinking that they began with self-evident truths. It is true that these mathematicians did not completely understand the nature of the propositions with which they started, but I think it is likewise true that mathematicians and logicians since the advent of non-euclidean geometries have failed to understand the nature of their postulates. Postulates within the system are systematically defined by the set, and so are, within the system, self-evident (i.e., necessarily true in the logical sense, though of course their necessity need not be psychologically obvious to cursory inspection). To this extent the older mathematicians were right. However, in failing to distinguish an abstract system of geometry from a spatial interpretation thereof, and hence in thinking that it is self-evident that (say) the angles of a triangle in real space are equal to two right angles, they were in error.

And (2) there is a difference of interpretation. The system-form of logic is comparable to the system-form of a geometry. We interpret each of these conceptually; *e.g.*, in logic we let p be 'proposition', and so on with the other variables; in geometry we let a certain K-element or construct of K-elements stand for 'triangle'. In an euclidean geometry it will be the notion 'euclidean triangle' and in a non-euclidean geometry it will be the notion 'non-euclidean triangle'. On this level of interpretation the propositions of the logic and of the geometries are necessarily true. But we may further seek for a concrete exemplification of these systems. The geometer turns to space; the logician to particular propositions (*e.g.*, This is red, All men are mortal). The logician finds that all the postulates and theorems of his system hold here too; but the geometer finds that either some of those of the euclidean system or some of those of the non-euclidean system are false *of* any given particular real space. Hence he might be led to conclude that the propositions of these systems of geometry are not necessarily true. But there is a confusion here, due to the geometer's taking, *e.g.*, 'triangle' as generic, whereas *in the system* it is a species of triangle. The proposition he finds to be false will be one like this, 'The sum of the angles of this real triangle in real space equals two right angles'. But the proposition in the system of euclidean geometry is, 'The sum of the angles of an euclidean triangle equals two right angles', which two propositions are not at all one and the same. Had the system of geometry been generic, this situation would never have arisen. The propositions *in* each system of geometry are true and necessary. What is true in one case and false in another is a value of the propositional function, 'Proposition No. n of system x is exemplified in this existential reality'. Hence geometries are alternative only in the sense that some exemplification of one of them is not an exemplification of another, and these two possible exemplifications are not identical. And the two system-forms of these geometries are alternatives only in the sense that the ranges of their conceptual interpretations do not coincide. But the propositions in one system are not incompatible with any propositions in another. This is true of all systems of the *coherent* type, such as mathematics and logic. We might illustrate this matter of interpretation by again referring to the system of objects in my room. Though they do not form a coherent system, they may nevertheless be a particular interpretation of a coherent system in the sense that if the term variables be interpreted as certain objects in this room, and the relation variable(s) as a certain relation(s) that holds between

the objects, the postulates as so interpreted may be true. But this does not mean that the particular objects form a coherent system or that the postulates so interpreted remain necessary or analytic propositions. In any particular interpretation in which the postulates are read as propositions about that particular contingent reality, they are transformed or adapted as indicated above—i.e., they are taken out of the system without carrying with them the limitations of range prescribed by the other postulates. Hence, (1) the system as interpreted—i.e., the postulates so changed as to become assertions about a particular reality, and consequently a set of true or false propositions—must be carefully distinguished from (2) the deductive *system* as such; and these two must not be confused with (3) the *reality* in which the system is interpreted. An example of (1) might be, 'The angles of a triangle in this reality equal two right angles', which is true if 'this reality' be euclidean space; of (2), 'The angles of an euclidean triangle equal two right angles', which is necessarily true independently of any particular reality; and of (3), a real existing euclidean space. A further distinction could be made; namely, between the illustration of (2) and the corresponding postulate in the system-form. This illustration represents a conceptual interpretation of a postulate in the system-form, and is necessary because the terms of the proposition are qualified—the term 'triangle' is qualified by the adjective 'euclidean'—corresponding to restrictions of range of the variables in the system-form.

Even at the risk of unduly extending this paper and of repetition I wish to emphasise the extreme importance of carefully distinguishing between a deductive system and a set of premises and their conclusions. The latter is not a *deductive system*, as we have used the term, for it is not *logistically developed*, which is a necessary condition of a deductive system. In actual mathematical and logical practice this distinction is easily overlooked because in constructing a system the mathematician or logician sets out to construct some particular system, and in selecting his primitive ideas he cannot but think of his term variables as (say) points, or spheres, or propositions; of his relation variables as (say) before, or included in, or implies. Likewise, in choosing his postulates he is thinking in terms of definite propositions whose elements are definite terms and logical constants—not mere variables. As a result he has had in mind a set of *premises*, and the hope that they will be sufficient to give as conclusions such other propositions as he thinks essentially characterise the subject-matter—the geometry, or the logic. But this account

does not exhaust what he has done. Though he may have read to himself the sign \oplus as (say) 'logical sum', he would say that this is not what he really means by it, for he put a circle around the ordinary plus sign, indicating that *in his system* it is to be a variable. Likewise he used certain other symbols, $a, b; p, q$, as term variables. From this point of view he was logistically developing a system—a truly deductive system—which he hoped would have as one of its possible interpretations geometry (say), or the logic of propositions. This distinction is often overlooked in explanations of the different types of geometry: a system is frequently illustrated, not by a deductive system logistically developed, but by a set of propositions taken as *premises*, which do not constitute a system, but are, rather, propositions taken as true of, for instance, euclidean space. Let us take a concrete example. Suppose we desire to present the system of serial order. In the left column below we write what we 'have in mind'; in the right, the *system* :—

Class of points (say).

The relation 'precedes'.

- (1) Of any two distinct points, one precedes the other.
- (2) No point may precede itself.
- (3) The points are so arranged that if a first precedes a second and this second precedes a third, then the first precedes the third.

K-class: a, b, c , etc.

A relation R.

- (1) $a \neq b : \supset : aRb \cdot \vee \cdot bRa$
(i.e., R is connexive).
- (2) $aRb \cdot \supset \cdot a \neq b$
(i.e., R is irreflexive).
- (3) $aRb \cdot bRc \cdot \supset \cdot aRc$
(i.e., R is transitive).

The left column contains a set of propositions about a certain set of objects. Knowing these propositions, we may infer still others; but in this case they function as *premises*. The left column, then, does not contain a deductive system: it is not logistically developed. In contrast to it, however, is the set in the right-hand column, which is just such a deductive system. The set of points described by the propositions on the left is an interpretation of the system on the right.

To summarise: The view that there are alternative or pseudo-logics has been discussed and found unproved. Then, by examining the nature of deductive systems we found that mathematical and logical systems are of essentially the same type; i.e., they are coherent self-defining systems such that no one can be inconsistent with any other—i.e., significantly alternative to it—owing to the fact that each postulate functions in limiting the ranges of the variables in such a manner that any change in one postulate (e.g., placing a \sim before it) involves a reciprocal change

in its other parts, which change causes it to remain analytic or tautological. The strange views we have been examining have been due perhaps to a failure to perceive this coherent nature of a deductive system. It is because of this systematic defining property of deductive systems that a pseudo-, or alternative, logic cannot be logistically developed. No matter how ingenious Prof. Lewis may be in constructing postulates, he will find that in the *system* so constructed, they will all turn out to be straightforward propositions or propositional functions, and will be 'bad' or 'pseudo' in no logical sense, though they may be so complex or may set forth such unusual properties that even more ingenuity will be needed to find an interpretation for them, if there be one.

IV.—LOGICAL CONSTRUCTIONS (IV).

BY JOHN WISDOM.

INTRODUCTORY.

(i) *Peccadilloes*.—At the end of Instalment III. is a list of three defects in sentences which might be and have been confused with that defect which I have called non-Ostensiveness. There was first omission. This is a defect (which is often an advantage) common to all indicatives by definition. For by definition there is always at least one element in the fact located by an indicative which is not specified by that indicative, and there is always at least one element in any *selection from* the facts located by an indicative account which is unspecified by that indicative. Thus it is not merely that "Something round is red" does not specify *This* in *This is round and This is red*, it also does not specify *That* in *That is round and That is red*; indeed, for every repetition¹ of any one of its situations there is a repetition of the crime.²

There was, secondly, malformation—a non-identity of structure. Under this head comes (a) telescoping, as in "This is red and round" and "Something red is round". Such a sentence elliptically displays the structure of its situation or situations. (b) Sometimes, indeed usually, a sign for repetition is used instead of showing repetition. This happens when we write "Two things are red" instead of "*x* is red, *y* is red", or "Three things are red," instead of "*x* is red, *y* is red, *z* is red". (c) Sometimes a

¹ See MIND, October, 1932, p. 461.

² I apologise for writing in note 1 to page 455 in MIND, October, 1932, "Indicating is $(C - 1)$ to one, where C is the number of combinations of $2n$ things taken n at a time, and n is the number of elements in the fact located". Indicating is $(C - 1)$ to one only when its co-domain is confined to a given selection; otherwise it is $(C - 1)$ to m where m is the number of selections.

And I should have said that a set of facts form a situation located by an account when they not only (a) form a selection from the facts located by the sentence in the account but also (b) have the identity and diversity of elements intimated by the account. Thus *This is red and That is round* is not a situation located by *Something red is round*, because though it fulfills (a) it does not fulfil (b).

sign for combined denial is used instead of a separate sentence, e.g., "Just one thing is red and it is round", i.e., "The thing which is red is round", i.e., "It is not the case that x is red and y is red and it is the case that x is red and x is round". "Everything which is red is round" means "It is not the case that x is red and x is not round and it is the case that something is red and round".¹

To avoid the difficulty as to what facts denials locate we say in this paper that the facts located by a universal or singular affirmative are those located by the particular affirmative which each contains.

There was, thirdly, impersonation. It has been suggested that "Cupid loves Venus" means "The thing with characters $\phi_1 \dots \phi_n$ (see classical dictionary) loved the thing with characters $\psi_1 \dots \psi_n$ (see classical dictionary)". If this is so, "Cupid loves Venus" (1) omits and (2) is even more malformed than its translation "The thing with characters $\phi_1 \dots \phi_n$ loves the thing with characters $\psi_1 \dots \psi_n$ ". Further (3) it pretends to commit neither of these crimes, for it pretends to be a sketch. Because of the combination of these three points we accuse it of impersonation.

(ii) *Procedure*.—If none of these defects renders a sentence non-ostensive it looks as if almost all sentences are ostensive. And so they are. We shall find that "England fears France" is a sketch. This at first sight seems very far from the conclusion we expected to arrive at. If "England fears France" shows the form, completely specifies the elements, and completely exhibits

¹ It has been claimed that superior analyses of the general proposition and the singular proposition have been provided of late years in, for example, the *Principia Mathematica*. If this means that for the ordinary universal affirmative and singular sentence translations have been found which are more nearly identical in structure with the facts these sentences locate, then the claim may be allowed, although $(x). \phi x \supset \psi x$ is not a tremendous improvement on "Everything which has ϕ has ψ ". To substitute for "The church in Hyde Park is large" the following: "There is an object which (i) is a church in Hyde Park, (ii) is large, and (iii) is such that any church in Hyde Park is identical with it" directs our attention to an unacknowledged assumption . . . viz. that there is a church in Hyde Park—it displays more clearly the structure of the fact located. Seeing clearly this structure prevents our saying that churches, unicorns and kings are sometimes real but not existent. For in seeing the structure we see that the subject of the fact is not a real but non-existent thing but a combination of characteristics. Now these characteristics have to be allowed in any case in order to deal with facts about existing objects. There is not even any need to suppose that there are any characteristics which neither characterise nor are made up of characteristics which characterise. Nevertheless the importance of the logistical treatment of singulars has been exaggerated.

the arrangement of the fact it expresses, shall we not have to say that England is not a logical construction? No. Because as I said in the last instalment "England fears France" may show the form, specify the elements and exhibit the arrangement of a fact while England is a logical construction, provided "England fears France" does not Show the Form, Specify the Elements, and Exhibit the Arrangement of a Fact.

We have defined ostensive sentences in terms of showing, specifying and exhibiting. We must now detect the ambiguity of these expressions and then remove it. Then we shall be able to define Ostensiveness.

I. DETECTING THE AMBIGUITY.

The ambiguity is not so very difficult to detect. I propose to prove it exists by first making clear that it is correct to say that "England fears France" is a sketch and then making clear that it is correct to say that it is not a sketch. (It is correct to say that F, if when I utter 'F' I am using words ordinarily and am speaking the truth. *E.g.*, it is correct to say that I am happy, if when I utter "I am happy" I am using these words ordinarily and am then speaking the truth.)

(i) "*England fears France*" is a sketch. (a) *The fact it locates is* (α) *two-termed and* (β) *contains England as a term.* (α) If we consider *Russia is happy, England fears France, Germany prefers England to France, Italy believes that Germany prefers England to France*, we see that these facts form a series in that the first is one-termed, the second two-termed, the third three-termed and the fourth four-termed. This seems to me a proper way of expressing a difference between these facts. I do not claim that it is a profound way of expressing that difference. (β) And I should say not only that England fears France is two-termed, but also that England is one of these terms. There are those who would exclaim "Do you mean to say that you believe that England is a constituent of the fact expressed by 'England fears France'? Don't you know that 'England' is an incomplete symbol and does not stand for any constituent of the proposition it expresses? Are you unacquainted with the theory of descriptions?"

No doubt in the sense of 'constituent' which these people intend England is not a constituent of the fact that England fears France. But so far as anything I have said in this paper goes, we shall be speaking correctly if we say "England is a constituent of the fact that England fears France"; we shall

be speaking according to the rules for speaking about constituents which I gave on p. 197 of *MIND*, April, 1931. These rules came roughly to this: If you say "*aRb*" (where this is typical of complete sentences) and speak truly, then you will also speak truly if you say "*a* is a constituent of the fact that *aRb*" and also if you say "*R* is a component of the fact that *aRb*".

What I mean when I say "*England fears France* has one more term than *Russia is happy*" should be clear to anyone, in the sense that he can decide whether I should say *Japan is jealous of Italy on account of Spain* is two-termed or three-termed—after all he has only to ask himself how many nations are mentioned, or to count the capital letters. And what I mean when I say "*England* is an element in the fact that *England fears France*" should be clear to anyone in the sense that he knows I should refuse to say this of Japan.

I assume then that it is understood and agreed that *Russia is happy* has two elements, is one-termed, i.e., has one constituent, and has one component; that *England fears France* has three elements, two terms and one component; and so on for the other facts.

(b) "*England fears France*" shows the two-termedness and specifies *England*. If now we consider the sentences locating these facts, we see (1) that the number of names intimates the number of terms; (2) that what the names are intimates what the terms are; and (3) that the arrangement of the names intimates the arrangement of the terms. Thus from "*England fears France*" we learn that the fact located is two and not three-termed in the sense in which *England prefers Spain to France* is three-termed; we learn that in the fact located it is *England* and *France*, not *China* and *Japan*, who are related by fear; we learn that in the fact located it is *England* who fears *France*, not *France* *England*.

Therefore "*England fears France*" is a sketch.

(c) The definition of 'the total situation located by' a sentence enables us to say that "*England fears France*" sketches the total situation it locates. When a sentence locates only one fact let us say that this one fact is the total situation located by that sentence; when a sentence locates several facts let us say that the totality of these facts is the total situation located by the sentence. Sometimes we shall speak for short of the situation located by a sentence and mean by this the total situation located, although this has the awkward result that the situation located by a sentence may include several situations located by that sentence.

We shall say that a sentence shows the structure, or indifferently the form, of the total situation it locates when it shows the form of the fact it locates or shows the structure of each situation it locates. It need not intimate, much less show, how many situations it involves, *e.g.*, "Two things red are round" intimates how many situations it locates but "Every Englishman fears a Frenchman" does not, although it *permits* of greater multiplicity than does "The Englishman fears a Frenchman" or "Tom fears a Frenchman".

We have seen that we may say that "England fears France" intimates by the identity of order convention the form, and intimates completely by vocabulary conventions the elements, and intimates completely by the identity of order convention the arrangement, of the fact that England fears France. *A fortiori* it intimates these things in some way or other, *i.e.*, locates precisely the fact that England fears France. A sentence or account cannot precisely locate more than one fact or situation. Hence *England fears France* is the total situation which "England fears France" locates. Hence the total situation located by "England fears France" is two-termed and contains England as a term, and "England fears France" sketches the total situation it locates.

(ii) "*England fears France*" is not a sketch. On the other hand, we shall find that in some sense we may say correctly "'England fears France' is not a sketch, and the total situation it locates is not two-termed and does not contain England as a term". Let us begin by considering *Ivan is happy, Tom fears Henri, Fritz prefers Tom to Henri, Pedro believes that Fritz prefers Tom to Henri*. These facts form a series in that the first is one-termed, the second two-termed, and so on. But not, surely, in the sense of 'term' in which *England fears France* is two-termed? One would have thought somehow that *England fears France* is or might be of greater complexity than *Tom fears Henri*. And when this is put more precisely one becomes sure that it is so.

(a) "*Every Englishman fears a Frenchman*" is substitutable for "*England fears France*". For when we say "England fears France" are we not saying something about how Englishmen are feeling, something which could be expressed in a more complicated sentence beginning "Every Englishman . . ." or "Most Englishmen . . ." and ending ". . . Frenchmen"? Let us for convenience say that the more complicated sentence is "Every Englishman fears a Frenchman".

(b) *The total situation located by "Every Englishman fears a Frenchman" has more than two terms and does not contain England as an element.* "Every Englishman fears a Frenchman" locates

facts about individuals; it locates such situations as (1) *Tom is an Englishman and Tom fears Henri and Henri is a Frenchman*; (2) *Dick is an Englishman and Dick fears François and François is a Frenchman*; (3) *Harry is an Englishman and Harry fears Jean and Jean is a Frenchman*; (4) etc.; and the total situation it locates is the totality of such facts.

(c) *If S' is substitutable for S, then what S' locates S locates.* If when I utter one sentence I am saying what I am saying when I utter another then the facts I locate by the one are the facts I locate with neither greater nor less preciseness by the other. For the characters of any sentence together with linguistic conventions entail the characters of any substitutable sentence. Thus the characters of my sentence "England fears France" imply that my sentence is translatable by "Every Englishman fears a Frenchman" and not by "Every Frenchman fears an Englishman" and not by "Every American fears a Frenchman". The characters of the substituted sentence together with linguistic conventions will of course entail something as to the form, elements and arrangement of the fact or facts it locates. Hence the characters of the original sentence do this. They may do this *only* because they fix the characters of the original sentence and not by the identity of form and order conventions and vocabulary conventions; in that case the original sentence locates *indirectly* the facts located by the substituted sentence. "England fears France" is so related to the fact located by "Chaque Anglais craint un Français quelconque". On the other hand, the original sentence may itself show the form and specify the elements of the facts located by the substituted sentence; in that case it *directly* locates them. Thus "England fears France" directly locates the fact located by "L'Angleterre craint la France".

We have seen that "Every Englishman fears a Frenchman" is substitutable for "England fears France"—that to say the one is another way of saying the other. Hence "England fears France" locates (indirectly and partially) the facts (1) *Tom is an Englishman and Tom fears Henri and Henri is a Frenchman*, (2) *Dick, etc.*, (3) *Harry, etc.* And the totality of these is the total situation it locates. This situation contains more than two terms for it contains as many terms as individuals; and does not contain England as a term.

Therefore there is a sense in which "England fears France" does not show the structure of the total situation it locates and does not specify its elements. It is not that, like a compressed universal, it tries but does not succeed in intimating by strict

identity of structure the structure of this situation. On the contrary, it makes no attempt to intimate this structure by identity. Since the total situation it locates in the second sense, viz., the Tom Dick and Harry situation, is *more fundamental* than the fact that England fears France, while if "England fears France" were taken as a guide to the structure of this situation in the way that the Tom-Dick-and-Harry-sentence is a guide to the structure of this situation we should be misled as to the structure of this situation, we may say that "England fears France" is apt to be misleading as to the structure of its fundamental situation. Further, "England fears France" does not specify any, much less all, of the elements of the Tom and Dick and Harry situation. In short, "*England fears France*" is not a sketch—it is not a sketch of its fundamental situation.

(iii) *The solution of these paradoxes lies in the ambiguity¹ as a whole of the expression "the total situation located by S has . . . terms" and consequently of the expression "the total situation located by S has . . . as a term."* These expressions are ambiguous as wholes in the sense that their ambiguity is not derived from the ambiguity of some but not all of their constituents, but from the ambiguity of all their constituents.

(a) '*Term*' is ambiguous. *England fears France* and *Tom fears François* are not both two-termed in the same use of 'term'; one is two-termed in the "national" use, the other in the "thing" or "individual" use. To call a fact two-termed in the thing use of 'term' implies that that fact contains as constituents two things. Now the fact located by "*England fears France*" contains only two terms (national use), but ever so many terms (thing use). So though it shows the number of terms (national) in the fact it locates it does not show the number of terms (thing) in the fact it locates.

(b) '*Locates*' is ambiguous. Above I wrote "The fact located by *England fears France* contains only two terms (national use), but ever so many terms (thing use)". This suggests that there is one fact with two terms in one use and many in another. But this is not the case. Obviously there cannot be two situations each of which is in the same sense the total situation located by a given sentence. Now the fact that *England fears France* is not identical with the fact or set of facts that (1) Tom is an Englishman and Tom fears François and François is a Frenchman, (2) Dick, etc., (3) Harry, etc. Hence the sense in which

¹ Multivalence would be better. Because it is a multiplicity of use not of meaning. I owe this point to Mr. A. E. Duncan-Jones.

the one is the total situation located by "England fears France" must be different from that in which the other is. This difference is not one of degree merely; it is not only that "England fears France" precisely locates the fact that England fears France while it only partially locates the fact that (1) Tom, etc., (2) Dick, etc., (3) Harry, etc. A sentence cannot in the same sense of 'locates a fact' precisely locate one fact and partially locate another. We do not say that "Something is red" precisely locates the fact that something is red and partially locates the fact that this is red. No; 'locates' has two uses because it means 'intimates the number of terms and/or what the terms are and/or their arrangement.' Now 'terms' as we have seen has two uses. In consequence 'locates' has two uses. "England fears France" precisely locates (in one use) *England fears France* and partially locates (in another use) (1) *Tom, etc.*, (2) *Dick, etc.*, (3) *Harry, etc.*¹

(c) '*Total situation*' is ambiguous. We shall find that 'the fact or totality of facts' is used in one way when combined with one use of 'locates' and 'term' and in another way when combined with another use. That this is so follows from the statement that a fact in some sense is its terms related in the way they are—though this statement is apt to mislead.

(iv) *The ambiguity extends further*—(a) *vertically*. 'Term' has more than two uses. It has been suggested that "Tom fears Henri" though not indeed so desperately misleading as to the complexity of the situation it indirectly locates as "England fears France," nevertheless commits the same kind of crime.² It has been suggested that just as nations are reducible to their nationals (men and the bits of land they live on), so persons are reducible to suitably inter-related mental states (for their souls) and suitably inter-related sense-data (for their bodies). On this view, just as we can substitute "Every Englishman fears a Frenchman" for "England fears France" and thus obtain a

¹ The logical order is as above. It is perhaps easier to see that 'locates' is ambiguous by noticing (a) that there cannot be two facts each of which is the total of what S locates; (b) that 'locates' = 'intimates terms'; (c) that its ambiguity does not arise from an ambiguity in 'intimates,' since in the case of each total situation located by S the characters of S together with linguistic conventions entail something about the situation; (d) that the ambiguity arises from the ambiguity of 'term'—that in one case the characters of S intimate the terms of the situation and in the other case the Terms of the situation.

² It commits also impersonation. "L'Angleterre craint la France" commits equally the crime of non-Ostensiveness, but it does not in the same way impersonate.

sentence which, though committing the ordinary sins of universals, is less misleading as to structure than "England fears France," so we can substitute for "Tom fears François" "The group of mental states and sense-data which have P, has R to the group of mental states and sense-data which has Q" and obtain a sentence which shows more clearly the multiplicity of terms involved in *Tom fears François* and the structure of the situation it locates. On this view, "Tom fears François" just means "The group of mental states and sense data which have P (some elaborate inter-relating property) have R to the group of mental states and sense data which have Q". Now the total situation located by "Tom fears François" is two-termed in the use in which "Tom is jealous of François on account of Jean" is three-termed. Yet since "Tom fears François" expresses the fact expressed by "The group of mental states and sense-data which have P has R to the group which has Q" and the situation located by this fact is many-termed, the total situation located by "Tom fears François" must be many-termed. Hence once more "the total situation located by . . . has . . . terms" is ambiguous.

(b) *The ambiguity extends further horizontally.* This ambiguity in 'term' is not easy to remove. We cannot say: *England fears France* has two terms in that use of 'term' in which it equals 'constituent' and has many terms in some other use. For 'constituent' and all other synonyms are also ambiguous in the same way. 'Term', 'constituent', 'referent', 'component', 'element', and 'form' are all ambiguous. And since 'locates' means 'intimates form and/or elements and/or arrangement', 'locates' is ambiguous. And since 'shows' means 'intimates by identity of form' and 'sspecifies' means 'intimates by a convention of the kind': *When 'N' is an element in 'F' then N is an element in F*, both 'showing' and 'sspecifying' and in consequence 'exhibiting' are ambiguous. Indeed, it is clear that our whole formal vocabulary is infected with this ambiguity. The words we employ for speaking of the form, elements and arrangement of the fact that F, are used differently where 'F' is of one level from the way they are used when 'F' is of another level, where 'F' is the sentence being used to express F.

It may be said "You have so puzzled us with your multitudinous uses of words that we do not know what *the* elements or *the* form of a fact is. What is *the* form of the fact that England fears France—the total situation that sentence locates is two-termed because it involves two nations and many-termed because it involves many men? What do you mean by *the* number of its terms?"

When I speak of *the* form of the fact that England fears France I use "form" in the sense appropriate to the sentence in which I have expressed the fact, *viz.*, "England fears France". In general, when I speak of the form and elements of the fact that F, I use 'form and elements' in the way appropriate to 'F' the sentence by which I have expressed F.¹ The use of form and elements appropriate to 'F,' where 'F' is a complete ostensive sentence, is the use in which 'F' shows the form and specifies the elements of a fact. Hence, anything named by an element in 'F' is an element in F and nothing else is (see rules for speaking of elements, p. 46, top, above). The use of 'form and elements' appropriate to 'F,' where 'F' is a descriptive sentence, is the use of 'form' and 'elements' which occurs in 'F,' *e.g.*, "There is a fact two-termed in form and having England as an element". We shall say of the sense of 'form and element' in which we speak of the form and elements of the fact that F, that it is the sense appropriate (derived sense) to the fact that F.

Fortunately there are two circumstances which each provide a method of removing the ambiguity in our formal vocabulary in the sense of enabling us to see the uses of 'form', 'element', 'showing,' etc., which are necessary for the definition of non-Ostensiveness.

II. REMOVING THE AMBIGUITY.

(i) *The Method of Limits.*—(a) *The uses of 'form and element' are arranged serially.* The ambiguity is systematic in two ways: (1) A given use of any one of the ambiguous expressions is associated with only one use of each of the other ambiguous expressions; *e.g.*, with a given use of 'element' there is associated only one use of 'form' and one of 'showing'. This is because all the expressions include, in some sense, 'element' in their definition and derive their ambiguity from its ambiguity, *e.g.*, 'form' means 'number of elements'. (2) The uses of 'term' and 'element' in the examples we have taken form a series. It is clear that the use of 'term' in which England is a term in *England fears France* is in some way definable by means of the use of 'term' in which Tom is a term in *Tom fears François*. *England fears France* is two-termed (national use) because the many terms (thing use) in the total situation it locates fall into two classes, Englishmen and Frenchmen. It is clear also that the second use of 'term' (thing or individual use) is definable by

¹ Not to any sentence which expresses the fact. For in a sense "Every Englishman fears a Frenchman" does this.

means of the third use of term (applicable to mental states and sense-data). In this third use of 'term' the total situation located by "Tom fears François" is not two-termed but many-termed, and the total situation located by "England fears France" many-many-termed.¹

(b) *The series has a last term.* Now since each member of this series of uses of 'term' is definable by means of the use below it, the series must have a beginning—we must finally reach that use by means of which all the other uses are defined.² If one looks at a number of other examples involving the use of this series of uses of 'term', one begins to see that use of 'term' by means of which all the others are to be defined. Let us write it 'Term' and call it the primary use of 'term'.³

If we can see at all the primary use of 'term' and 'element' then by the systematicness of kind (1) above we shall to that extent be able to see the primary use of 'form' and then of 'locating' and then of 'showing', 'sspecifying' and 'exhibiting'. When we use these words in their primary uses let us write them with capitals.

(c) *We may now write "S is an Ostensive sentence" means "S is a sentence which Shows the Form, Sspecifies Completely or Incompletely the Elements and Exhibits Completely or Incompletely the Arrangement of the Total Situation it Locates.*

The series of uses of 'elements' generates a series of uses of 'locates' corresponding to the series of uses of 'element'. We have (1) $\text{Locates} = \text{locates}_1 = \text{intimates Form and Elements}$; (2) $\text{locates}_2 = \text{intimates form}_2 \text{ and elements}_2$; (3) locates_3 , etc.

The series of uses of 'elements' generates⁴ a series of levels of sentence—not a series of uses of 'sentence'.⁵ First there are

¹ I do not claim that there is *one* series of uses of 'term' such that every use of 'term' finds a place in that series. I claim that in the examples taken in the text we can see a series of uses of 'term'.

² Now begins to appear the sense of 'simple' in which language requires simples. It is not the sense of having no parts.

³ We cannot define "... is an Element" as "... is an element in the final use", i.e., "is correctly called an 'element' in the use which is the last term in the series of uses above". For (a) when we say "... is an Element" we are using 'element' in the way *described* in the suggested definition. (b) The series is defined in terms of a relation defined in terms of Element. For one use of 'element,' e_2 , comes after another, e_1 , when a sentence for which e_2 is appropriate is further from Showing the Form and Sspecifying the Elements of a act than is a sentence for which e_1 is appropriate.

⁴ I do not wish to claim that the series of uses of 'element' is more fundamental than the conception of a series of levels of sentences.

⁵ 'Level' has been used in this paper for quite a different idea (MIND, April, 1931, p. 206). But I cannot think of anything else.

Ostensive sentences or first level sentences. *S is a first level sentence* means *The use of 'form and elements' appropriate to S is the primary use.* *S is a second level sentence* means the use of 'form and elements' appropriate to S is 'form₂ and elements₂'. And so on.

We have also a series of levels of fact. *The fact that this adjoins that is of the first level* means "This adjoins that" is of the first level.

Sometimes when S locates the fact that F, the sense of 'form and element' appropriate to F is the same as that appropriate to S. When this is so we say that S *directly locates* the fact that F, e.g., "Something fears France" and "England fears France" and "L'Angleterre craint la France" each directly locate the fact that England fears France. 'F' and incomplete forms of 'F' always directly locate the fact that F. On the other hand, sometimes when S locates the fact that F, S and F are not of the same level. When F is of lower level than S let us say that S *indirectly locates* the fact that F, e.g., "England fears France" and "L'Angleterre craint la France" indirectly locate the situation directly located by "Every Englishman fears a Frenchman" and by "Chaque Anglais craint un Français quelconque". Let us say that S *finally locates* the fact that F, when F is of the first level.

We must not say that "England fears France" locates the fact that every Englishman fears a Frenchman although we say (1) that in some sense the fact that every Englishman fears a Frenchman is the fact that England fears France, and (2) that "England fears France" locates the fact that England fears France. This apparent contradiction is resolved as follows: The fact that England fears France is the fact that every Englishman fears a Frenchman in the sense that "England fears France" expresses what "Every Englishmen fears a Frenchmen" expresses, i.e., in the sense that the total situation finally located by the one sentence is also the total situation finally located with equal precision by the other sentence, i.e., in the sense that the one sentence is substitutable for the other. It is rash to express this by saying that the one fact is the other; for in one sense this is untrue since *England fears France* contains England as an element while *Every Englishman fears a Frenchman* does not. Again, the latter fact is incomplete and cannot be said to have a form or elements of any level and cannot therefore be located by a sentence, though of course it is correct to say that it is expressed by one; since S expresses F means *Either S is 'F' or*

is substitutable for 'F',¹ e.g., "L'Angleterre craint la France" expresses the fact that England fears France.

It follows from these things that: (1) When S directly locates what it finally locates then S is Ostensive; (2) When what S directly locates is a first level fact then S is Ostensive;² (3) When S expresses what it finally locates then S is a Sketch.

"This is all very well", it will be said, "so far as it goes. But you admit that your Elements are an unrealised ideal; that is, you allow that there is not in ordinary language any sentence, say '*aRb*', such that you can take one of the names from it and write '*a* is an Element of the fact located by *aRb*'. Because of this, although according to you there are hundreds of examples of Elements, since each sentence locates directly or indirectly a situation containing Elements, yet you are unable to point out these examples in language. You want to meet this difficulty by pointing out in language in the ordinary way, things which are terms in a series of uses of 'term' which more and more nearly approach that use which you spell with a capital T. You have given us one example of such a series, and perhaps if we consider a few more, we shall see more clearly this elusive use of 'term' about which you are so concerned. But is there not some auxiliary method for detecting the uses we want?"

It is true that there is not in any ordinary language any sentence in which one of the names names an Element in the fact it locates. Fortunately, however, when "This is red" is modified in the way suggested above³ we may say that This is an Element in the Fact Located by "This red" and that this Fact is One-Termed in Form.

And there is an auxiliary method of picking out the use of 'form and element' which we want.

(ii) *The Method of Atomic Facts.* (a) *The use of 'form' and 'elements' appropriate to atomic facts is the use we want.*⁴

If we can say "The fact that this adjoins that is an atomic fact" then we can say "This is an Element in the fact that this adjoins

¹ 'Express' may be used so that S and 'F' must be of the same grade.

² A sentence which is non-Ostensive displays form and elements (of the fact it directly locates) but the form and elements it displays are not Form and Elements. A sentence which is non-Ostensive intimates Form and Elements (of the fact it finally locates) but the Form and Elements it intimates it does not display.

³ MIND, April, 1931, p. 203.

⁴ I use 'atomic' because I think I mean by 'atomic' what Russell and others have meant by it. But they have said that atomic facts cannot contain other facts. My atomic facts can. E.g. *I observe that this adjoins that contains This adjoins that.*

that and this fact is Two-Termed in Form". But can we say that it is an atomic fact? What is meant by 'atomic fact'? And which are the atomic facts? I shall answer the second and easier question first.

(b) *The atomic facts are those which (α) are absolutely complete and independent.*¹ It may be objected that an incomplete fact is a contradiction in terms. This is in some sense true—in what sense will appear later. Nevertheless there is a difference between the facts expressed by incomplete sentences and those expressed by complete sentences which I propose to call a difference in completeness. If the policeman is told that somebody hit the deceased his information is less complete than when he is told that Alfred hit him.

But how are we to tell whether a fact is absolutely complete and absolutely independent and what is the point of 'absolutely'? Shall we say that all facts expressed by complete sentences are complete while all facts expressed by incomplete sentences are incomplete? If we did we should have to say that *England fears France* is a complete fact. Well, it is, relatively to *Something fears France* and *Everything fears France*. Indeed *England fears France* is complete relatively to any fact expressed by an incomplete sentence of the same level, viz., the national level. But *England fears France* is far from being absolutely complete. For *England fears France* is the fact expressed by "Englishmen fear Frenchmen" and this fact is incomplete relatively to a fact expressed by a complete sentence of that level, e.g., "Tom fears Henri and Dick fears François, etc". The former does not tell us who the Englishmen and Frenchmen are while the latter does. We can say that a fact is absolutely complete only when it cannot be expressed by an incomplete sentence of any level.

Similarly *England fears France* is independent relatively to facts expressed by incomplete sentences of the same level, e.g., "Something fears France". For the facts expressed by such incomplete sentences depend, in a sense to be explained, upon those facts about nations which are expressed in complete sentences of the national level, while *England fears France* depends on no other fact about nations. But *England fears France* is not absolutely independent. For it is identical with the fact expressed by an incomplete sentence of the individual level, which fact is dependent upon facts expressed by complete sentences of the individual level. An absolutely independent fact is one

¹ See MIND, Oct., 1932, p. 445. I shall ignore indeterminate facts. The distinction between absolutely complete and incomplete facts may be compared usefully with that between general and atomic facts.

which is independent of all other facts no matter what the level of the sentences in which they are expressed.

(β) *The atomic facts are those which are the absolutely final instances, supplements and supports of all other facts.* The completeness and independence of the atomic facts may also be defined by saying that atomic facts are (1) the final internal instances, (2) the final supplements, and (3) the final supports of all other facts. This is not strictly correct. We were not quite right in saying that all complete facts are atomic. *This is red and this is round* is complete but not atomic.¹ Such complex complete facts are made up of atomic facts. Atomic facts are the final instances, supplements and supports of simple incomplete facts; and atomic facts make up the final instances, supplements and supports of complex incomplete facts. Let us confine ourselves for the present to simple facts.

(1) Final instances.² The fact expressed by a descriptive sentence is a fact with regard to a description of a fact in terms of its form and elements that there is a fact or facts which answers to that description. Such a description I call an internal factual description. The exact definition of an internal factual description requires a little care. (*a*) It is not of course *any* description of a fact, *e.g.*, *observed by Harold*, which is an internal factual description; an internal factual description must be in terms of structure and elements. (*b*) It is necessary to begin by defining internal factual descriptions of the first order. They are defined in terms of the sense of structure in which complete facts have structure. Then one may define internal factual descriptions of the second order in terms of those of the first order and so on. The character *a fact to the effect that there is a fact which has ϕ* , where ϕ is an internal factual description of the first order, is an internal factual description of the second order. (*c*) There is a further slight complication produced by the facts expressed by descriptive *accounts*. These of course describe a pair or more of facts.

When one fact, D, is to the effect that there is a fact or facts having such and such an internal factual description, while a fact F answers to that description, then I say that F is an internal instance of D. The facts which answer to the description are, it may be noted, the facts located by the descriptive sentence expressing D. Consider the series: (1) There is a fact to the

¹ Complex facts have so far been called situations, but of course it is quite correct to call them facts.

² See Langford, *MIND*, October, 1929. It will be obvious how much I owe to Mr. Langford.

effect that there is a fact to the effect that there is a fact with *adjoins* as component; (2) there is a fact to the effect that there is a fact with *adjoins* as component; (3) there is a fact with *adjoins* as component; (4) This *adjoins* that. Each later term in this series is an internal instance of the term above it. The penultimate term is a simple descriptive fact of the first order; the term before the penultimate term is a simple descriptive fact of the second order and so on.¹ A series generated by *internal instance of* need have no first term but it must have a last term, i.e., a term such that every other term in the series is a term of which it is directly or indirectly an internal instance while it, itself, has no instance. A final internal instance is an internal instance of a descriptive fact of the first order.

Every instance series of descriptive facts ends in an atomic fact and every atomic fact is the end of such a series. But this does not make atomic facts the final instances of all facts; it does not make atomic facts the final instances of ostensive facts. Ostensive facts which are absolutely complete are or are made up of final instances. But how about ostensive facts which are incomplete? Are not these instances which have no instances and in consequence final instances? And if so the class of atomic facts cannot be co-incident both with the class of absolutely independent facts and the class of final instances. But it is incorrect to say that the incomplete fact *Something adjoins this* is an internal instance of *There is a fact with adjoins as component and this as relatum*. For being incomplete it cannot have form and contain elements in the sense involved in the definition of an internal factal description.

On the other hand, the incomplete ostensive fact *Something adjoins this* has a final instance in the sense that it is equivalent to the descriptive fact *There is a fact with adjoins as component and this is relatum* which has a final instance *This adjoins that*. This final instance is atomic.

(2) Final Supplements. Atomic facts are the final supplements of all other simple facts. Internal factal descriptions may tell us more or less about the structure and elements of a fact or situation. Suppose we have a fact, G_1 , with regard to some internal factal description, D_1 , that there is a fact which answers to it. Suppose we have a fact, G_2 , with regard to an internal factal description, D_2 , which tells us all that D_1 tells us and one thing more about the form and/or elements and/or arrangement of the fact which is an internal instance of G_1 and

¹ For the use of orders of descriptions see Langford (*op. cit.*) p. 450.

G_2 . Then G_2 is a supplement of G_1 . Consider the series: (1) There is a two-termed fact; (2) There is a two-termed fact with *adjoins* as component; (3) There is a two-termed fact with *adjoins* as component and *this* as referent; (4) There is a two-termed fact with *adjoins* as component, *this* as referent and *that* as relatum. Each later term in this series supplements directly the term above it and indirectly the terms above that. The last term in this series is the final supplement directly or indirectly of each of the terms above it. The penultimate term in the series is a first order incomplete fact of the first grade; the term before the penultimate is a first order incomplete fact of the second grade; and so on.¹ Such a series must have a first term,² and a last term. It is a mistake to say that the last term in this series, namely *There is a two-termed fact with adjoins as component, this as referent and that as relatum* is itself an atomic fact. It is, however, clearly equivalent to the fact expressed by its corresponding ostensive sentence "This adjoins that". And this fact is atomic. *This adjoins that* is not a term in the above series but it is the final term in the equivalent series: (i) Something something something; (ii) Something adjoins something; (iii) This adjoins something; (iv) This adjoins that. It will now be easy to see what is meant by saying that the facts in this equivalent series supplement one another, in a slightly changed sense of 'supplement'. Hence we may write: The facts which themselves have no supplements but are directly or indirectly the supplements (in one or other sense) of all other facts are the atomic facts. Every final supplement is a complete fact; for if a fact is incomplete then it has a supplement. And every complete fact is a final supplement. Thus is the completeness of atomic facts defined.

(3) Final supports. If we consider an instance series and a supplement series we shall find (a) that any later term in such a series entails any earlier term and (b) that any earlier term depends upon each later term. Each earlier term depends upon each later term because each earlier term just is or is equivalent to a fact to the effect that there is some such fact as the last term. What is this relation of *dependence*?

¹ Take '*a*' '*R*' and '*b*' as names and '*x*' '*ρ*' and '*y*' as hiatuses. Then from aRb we first derive incomplete facts of the first grade xRb , apb , aRy . Next the second grade xpb , xRy , apy . Finally the third and purely formal grade xpy . Note that aRy though it tells more than apb is not a supplement of xpb ; for it does not tell all that xpb tells.

² Although the number of terms may be infinite if the number of elements in the fact is infinite.

Consider the fact *Something is red* and suppose it has just two final supplements *This is red* and *That is red*. In the first place, each of these supplements of *Something is red* entails *Something is red*. In the second place, *Something is red* would not be the case unless one or other of these supplements were the case, i.e., unless the alternation of these supplements were the case, i.e., unless *Either this is red or that is red* were the case.

But what do we mean by "*Something is red* would not be the case if *Either this is red or that is red* were not the case"? Do we mean that *Something is red* entails, i.e. formally implies, *Either this is red or that is red*? But that would be going too far.¹ Do we mean that *Something is red* materially implies *Either this is red or that is red*? But that would not be going far enough. We do not mean merely that it is not in fact the case that something is red while neither this nor that is red. What we mean is that there are certain facts which together with *Something is red* entail *Either this is red or that is red*; in other words, we mean that if *this is red* and *that is red* were both removed from the world and no independent alteration made, such as the changing of that from blue to red, then *Something is red* would have to go too.² I express this relationship by saying that *Something is red* conditionally depends upon *Either this is red or that is red*. p is dependent on $q = p$ is incompatible with not- q , i.e. p entails q . (2) p is conditionally dependent on $q =$ There is some fact or facts, C , such that p is incompatible with C and not- q . (3) q may then be said to be conditionally necessary to p .

But I think we mean more than this when we speak of the dependence of a general or incomplete fact upon its supplements. I think we have in mind the peculiar facts which make up the condition of the dependence.

It is easy to say in general which are these peculiar facts which make up the condition which together with an incomplete fact entails the alternation of its supplements. The entailment is in two stages. First, *Something is red* together with the constitution of the world entails *Either this is red or that is red or that is red or that is red*, where this, that, that and that is an ex-

¹ See Moore, "Facts and Propositions", *Supplementary Vol VII. of the Aristotelian Society*, 1927.

² How dependence is analysed in terms of entailing and the facts is brought out if we write "*Something is red* depends upon *Either this is red or that is red*" means "The truth of some other proposition together with *Something is red* would entail *Either this is red or that is red*, and that other proposition is true".

haustive list of the constituents of the world.¹ The constitution of the world is the fact *This, that, that and that are all constituents of the world and none but these are.*²

Second, *Either this is red or that is red or that is red or that is red* together with the negative distribution of red entails *Either this is red or that is red.* The negative distribution of red is the fact *that is not red and that is not red* (where this list gives all the things which are not red).

It is now apparent that this case of conditional dependence is peculiar. To begin with the first condition—the constitution of the world is a very peculiar fact. Notice that though of course one can utter the words “This is a constituent of the world” without speaking truly one can do so only by meaning nothing by them. For directly ‘this’ is used as a name and thus an assertion made, the speaker must be speaking truly. For *this* can not be a constituent of a judgment without being a constituent of the world.³

¹ In ‘constituent of the world’ ‘constituent’ is used slightly differently from the way it is used in constituent of a fact. The constituents of the world are those elements in the totality of facts which cannot be components.

² I prefer this way of expressing the condition to that suggested by Dr. Moore's language in his paper “Facts and Propositions”. “This exists, that exists etc. and nothing else exists” would do, of course. But the use of ‘exists’ here is different from its use when the subject-phrase of the sentence is a descriptive phrase, i.e., is a phrase of the kind ‘Something which has ϕ ’, ‘Everything which has ϕ ’, or ‘The thing which has ϕ ’, or a phrase for which some such phrase is simply substitutable (see *MIND*, April, 1931, p. 190). For ‘this’ and ‘that’ are names, so that ‘exists’ functions as a hiatus so that “This exists” means “This . . .”.

³ There are (1) facts which would be found in any world whatever its components, constituents and configuration. These may be called *absolutely necessary*, e.g., *Any proposition of the form No S is P would entail a proposition of the form No P is S.* The facts of logic are of this kind. (2) Facts which would be found in any world with the same components as this whatever its constituents and configuration. These are *componently necessary*, e.g., *Taller is a transitive relation, Red is a determinate of coloured, Red is a component of the world, Something is red would entail Something is extended.* The facts of geometry are of this kind. (3) Facts which would be found in any world with the same constituents as this whatever its components and its configuration, e.g., *This is a constituent of the world.* I can think of no other example. These facts are *constitutionally necessary*. (4) Facts which would be found in any world with the same components and constituents as this whatever its configuration, e.g., *This is red would entail This is not green.* (5) Facts which would be found in any world having the configuration of this one, e.g., *This is red entails This is not green.* (This sentence may be used so as to mean “This is red would entail This is not green”. In this use of course it expresses a fact having

Again the dependence is peculiar in that although *Something is red* does not entail the alternation of its supplements it does entail that one or other of its supplements is the case. *Something is red* entails that one or other of its supplements is the case in the sense that it entails that there is some fact which supplements it. It does not entail one or other of its supplements in the sense that there is one or other of its supplements S_1 such that *Something is red* entails S_1 . Nor in the sense that that *Something is red* entails *Either S_1 or S_2 . . . or S_n* , where these are its supplements.

Again, whatever the constitution of the world and the negative distribution of the component of *Something is red*, it will still be the case that *Something is red* plus that constitution and distribution entails the alternation of the supplements of *Something is red*—though not in the sense that, where S_1 . . . S_n are now its supplements, then the alternation of those facts would be entailed by *Something is red* plus the constitution and negative distribution whatever these might be.

Let us call this peculiar kind of dependence *c-and-d dependence*.

The supplements, then, of an incomplete fact are severally sufficient for it—each entails it, and jointly they are conditionally necessary by *c-and-d* to it—their combined absence together with the constitution and negative distribution would entail its absence. The supplements are not severally necessary by *c-and-d* to the incomplete fact except in the limiting case where there is only one supplement. When there are n supplements then each is necessary by *c-and-d* to a degree $1/n$ to the incomplete fact. Thus *This is red* is necessary to a degree $1/2$ to *Something is red* when *Something is red* has only two supplements, viz., *This is red* and *That is red*.

Let us express the fact that each supplement of an incomplete fact (i) entails it and (ii) is conditionally necessary in some degree to it, the condition being the constitution of the world and the negative distribution of the component of the supplement, by saying that each supplement of an incomplete fact *supports* it.

We reach the conception of a *final* support by considering the necessity of kind (4.) (6) *This is red*. These facts are *configurationally* necessary, i.e., contingent.

(1) p entails q , i.e., p absolutely entails q , when there are no conditions of the entailment other than p and q . (2) p componently entails q means the condition is a componental fact, e.g., *Red is a component of the world*. (3) p constitutionally entails q means the condition is a constitutional fact. (4) p configurationally entails q means There is a configurational fact F such that p plus F entails q . This is often called implication in ordinary language.

series of facts *Something adjoins something, This adjoins something, This adjoins that*. Each term supports the term above it, but only the last is not itself supported; hence only the last is a final support.

Every final instance is a final supplement and conversely. Every final supplement is a final support and conversely. The three classes are co-incident. And the class of atomic facts is co-incident with the three. Hence atomic facts are the final instances, final supplements and final supports of all other simple facts. It remains to deal with non-simple facts.

Some of these are complete, e.g., *This is red and That is round*. These are made up of atomic facts. They have no instances, no supplements, and no supports.¹

But some of the non-simple facts are incomplete. Let us deal first with particular affirmatives. *Something red is round* is clearly equivalent to *There is a fact with red as component and there is a fact with round as component and the constituent of the one is the constituent of the other*. A particular affirmative is then equivalent to a fact regarding two (or more) internal factual descriptions that there are facts, which answer to them, plus a fact about the identity of their elements. A set of facts $f \dots fn$ form a situation which is an internal instance of a particular affirmative, P, when (a) just one, a different one, answers to each of the different internal factual descriptions in P, and (b) they have the identity and diversity of elements mentioned in P. Thus *This is red and this is round* is an internal instance of *Something which is red is round*. *This is red and that is round* is not; because it fails to fulfil condition (b). It is clear that the atomic facts make up the situations which are the final instances of particular affirmatives, i.e., that these situations consist of atomic facts joined by 'and'.

Similarly suitable alteration in the definition of 'supplement' gives us *This is red and this is round* as the final supplement of *Something which is red is round*.² It is clear that the atomic facts make up the situations which are the final supplements of particular affirmatives.

If we call *red and round* the "component" of the situation *This is red and round* we can speak of the negative distribution

¹ They are called, of course, molecular facts. Each depends absolutely upon the facts which make it up.

² Again of course *This is red and that is round* is not. So far from providing additional information about the elements and structure of a situation information about which is provided by *Something which is red is round*, it provides conflicting information since *this* is other than *that*.

of the component of the supplements of *Something red is round*, meaning the class of facts such that each is either a fact with regard to something that it is not red or a fact with regard to something that it is not round. This enables us to speak of those situations upon which *Something red is round* has a *c-and-d* dependence, i.e., the "supports" of *Something red is round*. And it is then clear that the atomic facts make up the final supports of particular affirmatives.

Let us deal next with universal and singular affirmatives. Here the situation is rather more different because as we have seen universals and singulars contain negative parts, and these do not have instances and supplements in the senses defined. We can only say that the atomic facts make up the final instances and final supplements of their positive parts. On the other hand, universals and singulars themselves have a *c-and-d* dependence upon other facts. Firstly, they are dependent (absolutely) upon their positive parts and their positive parts have a *c-and-d* dependence upon other facts; hence they themselves have a *c-and-d* dependence upon other facts. Here we may note (1) that *The thing which has ϕ has ψ* is dependent upon the negative distribution of ϕ , and note (2) that the relation between a universal affirmative and the situations described in its positive part is different in two important respects from the relation between any particular affirmative and the situations it describes. For it is not true that each and any of these situations entail it; for they entail only its positive part and not its negative part, e.g., *This is red and round* does not entail *Nothing is red and not round*. Suppose a universal *Everything which has ϕ has ψ* and suppose that *This has ϕ and ψ* and *That has ϕ and ψ* are the only two situations described in its positive part. Then nothing short of all these situations together with *Nothing other than this or that has ϕ* ¹ entails not only the positive but also the negative part of the universal. This makes a universal dependent by *c-and-d* upon the situations described in its positive part and dependent not merely to a degree $1/n$, where n is the number of these situations, but to a degree 1, i.e., completely though not unconditionally.

We have now seen that there are certain facts which are or make up the final instances, supplements and supports of all other purely positive facts and of the positive parts of facts containing negative parts. These facts are the atomic facts. The use of 'form and elements' appropriate to these is the use of which we are in search.

¹ This is entailed by the constitution of the world plus the negative distribution of ϕ .

"But", it may be said, "does not the same difficulty occur once more? Does not the multivalence of our formal vocabulary render useless the statement about how it is to be removed because the multivalence affects that very statement? *England fears France* is in a sense a final instance, supplement and support—relatively to *Something fears France* it is."

It is true that *England fears France* is a final supplement in the sense that in the use of 'form and element' appropriate to "England fears France" there is no fact which tells us more about the form and elements of the fact located by "England fears France". On the other hand, there is another lower sense of 'form and elements' and "fact located by 'England fears France'" in which another fact does tell us a lot more about the form and elements of the fact located by "England fears France". There is certainly a situation made up of facts about Tom, Dick and Harry which would be a supplement in some sense to the fact that England fears France. This is still more apparent when we substitute "Englishmen fear Frenchmen" for "England fears France". And it is true that *England fears France* is independent of other facts about nations. But it is dependent upon, and is supported by, a number of facts about individuals. This is only to repeat what was said above when we said that England fears France is only relatively independent—it is only that the nature of the dependence has now been defined.

A fact is an atomic fact when it is an absolutely final instance, an absolutely final supplement and an absolutely final support. This means: A fact is an atomic fact when it has no instances no supplements and no supports in any use.¹

We could, if we liked, *define* an atomic fact as an absolutely final instance, supplement and support. But it would be a pity to do this, because by looking at the improvements which take one along the three routes (instances, supplements and supports) and then looking at the facts at which one arrives, one can see a positive character in which they all agree—the character of being an atomic fact.

Atomic facts have form, elements and arrangement in a use in which the facts dependent upon them have not, although some at first seem to have when they are expressed in complete sentences such as "England fears France". The use of 'form,

¹ More accurately: Consider the series of uses of instance, supplement and support to which the critic has drawn our attention. Then a fact is an ultimate fact only when it has no instances, supplements or supports in the last of these uses and therefore in none of them.

elements and arrangement' appropriate to atomic facts is the use we called primary and is the use we want.

We saw above that the ambiguity in the formal vocabulary is systematic in that (1) with each different use of 'form, elements and arrangement' is associated a different use of 'showing, specifying¹ and exhibiting', and (2) that each use of 'form, elements and arrangement' is associated with only one use of 'showing, specifying and exhibiting'. Hence the use of 'showing, specifying and exhibiting' associated with the use of 'form, elements and arrangement' appropriate to atomic facts is the primary use.

(c) If we write a word in capitals when it is used appropriately to atomic facts then we have once more: *When a sentence Shows the Form of a Fact and Completely or Incompletely Specifies its Elements and Completely or Incompletely Exhibits its Arrangement then that sentence is Ostensive and Displays that Fact.*²

A sentence is non-Ostensive when it is ostensive but not Ostensive. A sentence is ostensive when it shows form, specifies elements and exhibits arrangement in any sense. (This is unsatisfactory; nor will "any of the series of senses we have considered" do.)

(iii) "*Tables are logical constructions*" means "*Table-sentences are non-Ostensive*". Table-sentences are, roughly speaking, those containing 'table' as ordinarily used. This definition requires one small amendment and one word of explanation. In the first place, it could not be that all sentences containing 'table', including descriptive sentences, are non-Ostensive, because they are not all ostensive. We must substitute Secondary for non-Ostensive. In the second place, it would not quite do to substitute "Any sentence containing the mark 'table' in any of its ordinary English usages" for "table-sentences". We should have to substitute "Any sentence containing 'table' as used at the level and with the meaning such and such", e.g., the level and meaning it had when used by Bob when he said this morning "I like that table".

¹ Throughout this instalment I have been using "specify" (with double s) in a manner inconsistent with my original definition (MIND, October, 1932, p. 448). I have been using it in such a way that "S specifies an element in F" is short for "An element in S specifies an element in F".

² A descriptive sentence is Descriptive when it corresponds to an Ostensive.

(To be concluded.)

V.—CRITICAL NOTICES.

Hume's Philosophy of Human Nature. By JOHN LAIRD, M.A.,
Regius Professor of Moral Philosophy in the University of
Aberdeen. London: Methuen & Co., 1932. Pp. ix + 312.
12s. 6d.

THIS book is one of the products of twenty years almost continuous lecturing on Hume. In it Prof. Laird seeks 'to give an exposition of Hume's philosophy of human nature, accompanied by certain running comments, and by an indication of the principal theories which were probably in his thoughts' (p. v). The exposition and comments are given subject by subject, and are arranged under the following general headings: Phenomenalism; Space and Time; Causality; Bodies and Minds; Scepticism; the Passions; Ethics; Politics; Economics; History and Criticism; Religion. An introductory chapter gives a biographical account of Hume, and a very short note on the design of the *Treatise*.

The general method adopted by Prof. Laird is to let Hume speak for himself as far as possible, by giving lavish quotations and close paraphrases largely in Hume's own phraseology, and then to offer running comments of a rather detailed character, somewhat in the manner of notes in an edition of a text. It would be difficult, perhaps impossible, to make such a book easily readable. Prof. Laird, I think, has not tried to do so. He tells us that he has hoped, when 'off his guard', to be of some little assistance to serious students of Hume (p. v); and this hope is certainly well-founded. His collection, throughout the book, of extracts from the proximate sources with reference to which Hume may have developed his guiding conceptions is in itself of outstanding interest, and is clearly of great value in helping us to determine Hume's attitude to his own doctrines. Moreover, Prof. Laird shows by brilliant comments here and there just how useful it could be. But he has made little or no attempt, I think, either in the arrangement of the book or by the provision of any substantial passage of sustained criticism, to help the reader to see details in the light of the whole, to form any general verdict on Hume, or to draw any general conclusions from Hume's successes or failures. The book will be chiefly of value to the professional student who goes to it in search of detail, knowing what he wants.

This is the more surprising and disconcerting, as Prof. Laird makes it quite clear that his primary interest in Hume is as a pioneer in

Phenomenalism; that is, I take it, as offering a substantial contribution to a philosophical doctrine or system of doctrines, which Prof. Laird conceives to be of considerable value. He tells us, indeed, in the introductory chapter that Hume meant 'to become the Newton of the human mind' (p. 20); he expressed discontent with introspective methods, and wished to argue 'from a cautious observation of human life' as it appears 'in the common course of the world', examining 'men's behaviour in company, in affairs and in their pleasures'. He understood the essentials of the Newtonian method as follows—'Proofs derived entirely from sense-experience; caution in going beyond the plainest sense-experience; contentment with uniformities which, though not ultimate, yet carried us a great way; a rigid parsimony in the principles of explanation' (p. 23). Prof. Laird also quotes here with effect Hume's tribute to Newton in his *History*—'While Newton seemed to draw off the veil from some of the mysteries of nature, he showed at the same time the imperfections of the mechanical philosophy; and thereby restored her ultimate secrets to that obscurity in which they ever did and ever will remain' (p. 24). All this of course should be taken as some general indication of how a Phenomenalist approaches his task. Furthermore, at the beginning of the second chapter Prof. Laird tells us extremely shortly and concisely just what is 'pure sensory phenomenalism', of which Hume 'set out to lay the foundations' (p. 25). But, broadly speaking, the reader is left to gather for himself from the consideration of a great number of details what is the true line of development of real Phenomenalism, to what extent Hume had a firm grasp of its essential principles, and how far in spite of failures he really made good its inauguration and solidly contributed to its advance. It is almost inevitable that a commentary on detail should lay stress on mistakes and give an exaggerated sense of the failure of the inquiry criticised. It seems a pity that Prof. Laird shows himself unwilling to help the reader, by bringing to a point the considered judgment of his long experience, to see Hume's work as a real essay in Phenomenalism.

From the nature of the book, then, a consideration of it must concern itself with detail, and this it can only do by touching more or less arbitrarily here and there. It may be said at once that generally speaking it is difficult to find a doctrine or difficulty of any importance in Hume which is not referred to in the book with learning and with insight; but it is also difficult, presumably because of the purpose of the author, to find any point which is pressed very far. This, though it may be legitimate, is extremely exasperating—the more so because what is said almost always provides an excellent basis for pressing the point further.

In examining Hume's view of the nature of impressions of sense, Prof. Laird tells us that Hume was the first to put a 'phenomenalistic interpretation' on the word 'impression' (p. 27). He then goes on to make several separate points (pp. 28-30). (a) Hume

habitually spoke of these impressions as 'objects'; to the generality of mankind they are the 'true objects'. (b) It is hard to reconcile the obvious intention of these statements with a host of other passages where Hume insists that all sensations are *internal* (i.e., mental) existences. (c) Hume sometimes gave physiological reasons to clinch his opinion, but in the main his argument is that 'impressions or perceptions' must 'appear, all of them, in their true colours'. (d) Hume held that all *simple* impressions were indefinable, but since he also maintained that impressions (unlike ideas) may 'like colours be blended so perfectly together that each of them may lose itself', it was not so clear whether any given impression *was* simple. (e) One of his fundamental tenets was that impressions of sensation were 'original' and arise in the soul from 'unknown causes'; he further explained that they arise 'without any antecedent perception'—though this is difficult to reconcile with the mitigated phenomenalism of e.g., the statement that 'all our perceptions are dependent on our organs and the dispositions of our nerves and animal spirits'. (f) The best known and probably the most important part of Hume's contentions in this matter was that all impressions were 'compleat in themselves'; this was Hume's celebrated 'loosening' of all our particular perceptions, which meets us at every turn of his argument; we may note here (1) that it seems to be plainly contradictory to his doctrine of the 'blending' of sensations, and (2) that it ascribes to appearances a disjointed look which they do not appear to have, and thus looks as if it were not a genuine phenomenalism. Prof. Laird then passes on (p. 30) to consider Hume's account of the distinction and relations between 'impressions' and 'ideas', which he treats in much the same way; and so on.

This summary gives a fair indication, I think, of the manner of the book in regard both to what it includes and to what it omits. It is clear enough that each of these points taken by itself is an important point. But surely to set them down side by side in this discursive manner and to leave it at that can only leave a confused impression on the mind of the reader, who naturally looks for some guidance as to the relative importance of the points and the conclusions to be drawn from them. For instance, in the pages summarised, Prof. Laird hints that Hume's phenomenalism is sometimes spurious, and also implies that it is sometimes genuine, as when he is speaking of the apparent blending of impressions. This is an important point, and Prof. Laird's analysis here can throw light on it. What he says surely *suggests* something like the following thesis. Hume is supposed to be speaking of appearances, and he insists that it is of vital importance not to go beyond appearances; yet he frequently attributes to appearances characteristics which they do not appear to have. That is to say, he is saying to himself in effect — the phenomena I am examining *must* have certain characteristics, e.g., they must be "simple" and "loose"; only he does not

notice that when the phenomena he is speaking of are appearances it is, to say the least of it, paradoxical to say that they *must* have certain characteristics *whether they appear to have them or not*. But, paradoxical or not, Hume was involved in saying this because of the clashing of two sides of his Newtonianism. In the first place, he wished to be Newtonian in his insistence on genuine observation and experiment, and on the necessity of not going beyond these. But, secondly, he took from Newtonian physics the conviction that to explain any phenomenon involved representing it either as itself simple or as a complex of simples, compounded in accordance with known laws. He was at one and the same time anxious to reject 'hypotheses' and eager to show that the laws of association in the mental world were the counter-part of the laws of attraction in the physical. While then he sometimes genuinely looked in experience for these 'simples' of which the complexes are complexes, he usually looked for them, not with an open mind to see whether or not they were really there to be found, but with the absolute conviction that they must be there and with the fixed determination to find them. Thus he normally *thought* he was maintaining that all appearances *obviously* are simple and separate; which would be a genuinely phenomenalistic thesis, though an unsound one, if I understand Prof. Laird's use of the term. But his real view was that, while they *appear* to be 'blended so perfectly together that each of them may lose itself', they *must* in the last analysis, in spite of appearances, be separate existences and simple; a view to which no genuine phenomenalist, unless I misunderstand Prof. Laird, would listen for a moment. If these considerations are sound, the Hume who maintains that impressions are 'simple' and 'loose' is not an erring phenomenalist; he is not a phenomenalist at all, but some kind of rationalist who believes that we can argue that so and so must be the case in spite of appearances to the contrary, even in regard to mental phenomena. In that case, his philosophy is not in the obvious sense a pure phenomenalism, but is a blend of genuine observation of appearances and of high theory as to how all experience might be explained on 'Newtonian' lines. If this is so, a commentary would be expected to give a firm hand of support in disentangling the blending; and a phenomenalistic interpretation would be expected to separate off the doctrines resulting from rationalistic influences, and to *argue* that these are not the real Hume. As things are, a reading of Prof. Laird's book definitely *suggests* to my mind that the elements in Hume's thought which are spurious, phenomenalistically speaking, are responsible, not simply for a number of odd statements, but for a whole side of his thinking, and perhaps for the entire *structure* of his system. But I cannot find that he ever *says* so; nor does he seek to lend a hand with the work of disentanglement.

In his discussion of Causation, Prof. Laird rightly points out that Hume sticks to his principle and explicitly derives the idea of

necessity from an impression, *viz.*, an impression of reflexion produced in the mind by certain repetitions of ideas (p. 125). He rebukes Cook-Wilson and Dr. Whitehead for speaking as if Hume had not done this, though I suppose that what they meant was that, taking it on the whole, this was probably not Hume's view—a judgment for which there is surely much to be said. Prof. Laird goes on to say that Hume should have maintained that 'the fresh psychological fact' produced by repetition is not a new 'impression' or 'idea', but rather a 'manner' of having ideas and impressions (p. 129). He implies that this would be compatible with a sound phenomenalism.

Actually, if Hume had been able to look at the matter with the informed dispassionateness of a commentator, surely he would have found serious difficulties in either of these two views, and in an obviously possible third view. (1) If he said that we have an 'impression' of being determined to pass from one idea to another, there is the difficulty that his arguments against our having any 'impression' of the exertion of power by ourselves in action should tell as well against our having an 'impression' of being determined; *i.e.*, on Hume's view judgments about internal determinations within our experience must depend, not on a feeling of being determined, but on some kind of inference from observation of sequences in our ideas and impressions. (2) If he maintained that we are conscious of being determined, but that this consciousness is a consciousness of a 'manner' of having ideas and impressions, rather than an impression, this would involve a really drastic re-building of his theory; he would have finally to go back on the doctrine of the 'looseness' of ideas, and with it abandon the simple principle of explaining experience in terms of awareness of impressions and ideas in favour of the dual principle of reducing it to an aggregate (?) or fusion (?) of two kinds of awarenesses, awareness of ideas and impressions and awareness of 'manners' of having impressions (*e.g.*, having them 'loosely', having them in determined sequence, having them in the semi-determined manner of ordinary imaginations or fancies and so on). This view is only open to Hume at all if his analysis of our supposed consciousness of power is taken to show, not that Hume just found in experience no consciousness whatever of power, but that he was misled into *concluding* that there was none such, when he failed to find an 'impression' of power, by his general conviction that consciousness consists of a series of impressions and ideas. Alternatively, of course, this passage (and passages similar in principle in his examination of the nature of the self) may be taken as showing that a genuine analysis of such details in experience was responsible for establishing or confirming in Hume his general conviction, *i.e.*, his analysis really convinced him that there was no consciousness whatever of power. (3) If, lastly, he had said that we have no consciousness at all of being determined, either as an impression or as a manner of having impressions, but that the simplest

hypothesis after consideration of the sequences of ideas in experience is to suppose that certain determinations of sequence, of which we are not consciously aware, do arise after a number of repetitions under certain conditions,—this position would have been consistent as far as it went, and would have offered potentialities for development as a psychological theory, as the subsequent history of Associationism shows. But for Hume it would have had two vital difficulties, even though it would have been in consonance with one side of his Newtonianism: (a) he would still be failing to derive our idea of the 'necessity' of these sequences from an impression in accordance with his principle, and (b) he would be explicitly admitting that secret forces are at work among ideas, of which we are never *conscious*, though we know that they must go on in order to produce certain things of which we are conscious. Prof. Laird does not discuss this last possibility, but he seems to think that Hume might have avoided all serious difficulties if he had adopted the second view.

In an excellent piece of criticism and argument (which occupies six pages) about the nature of the self, Prof. Laird comes nearer than elsewhere to really facing the dust of the arena. He seeks to discover whether in this connexion 'Hume's phenomenalism did not weave a rope to hang itself' (p. 169). He rightly points out that Hume's critique of personal identity involves two main principles: (a) that 'identity', strictly interpreted, means uninterrupted existence without the smallest variation in quality; (b) that the self, if there were one, would have to be an *identical* 'impression' in this strict sense of identity (p. 171). He then proceeds to make two points:—

(1) According to Hume 'things' are not invariant entities, but are 'resoluble into fluctuating if patterned constellations of changeless items whose interrelations altered', the items themselves of course only being changeless because they are not continuant but perishing; thus since there is nothing changeless in them, 'things' are not really continuant entities, and the belief that they are is illusory. If Hume's opponents argued that 'patterned or developing continuity is an entirely intelligible sort of "thing hood"' (p. 171), Hume has not considered this view and has no argument against it, —*provided* of course that they really mean what they say, *viz.*, that identity can depend on pattern alone, and do not slip back into saying that *part* of the thing remains the same while part is altered. Prof. Laird does not here seek to show that this view can be defended: it would clearly have to be maintained, for instance, that the pattern, on which identity depends, may *develop*, *i.e.*, change and yet remain the same identical pattern, and it is not clear why identity should produce fewer problems in the case of a changing pattern than in the case of anything else which changes. But he is clearly so far right in saying that the contention that changelessness in one atomic part is necessary to identity is quite indefensible.

(2) Was Hume right in maintaining that when he tried to examine

himself he always stumbled upon a heap of loose perceptions? Leaving aside those philosophers who assert, perhaps over-confidently, that one who stumbles on a particular perception, e.g., a particular 'seeing' or 'hearing', shows when he says 'I see' or 'I hear' that he also stumbles upon himself, and that if Hume failed to observe this so much the worse for his 'perspicuity', Prof. Laird argues that Hume's description of the relevant facts was 'obscure if not actually self-contradictory' (p. 173). In the first place, Hume should have really faced the question whether when he looked at his own experience his 'perceptions' looked like a 'connected heap' or 'system' or looked 'loose' and unconnected; and as a consistent phenomenalist he should have taken it that whichever they appeared to the observer, that they were. He may or may not have had good reasons why, in order to give a consistent account of the structure of experience as a whole, he should represent a particular act of remembering as a new 'loose' perception called up owing to its resemblance to or causal dependence on a previous perception; but it is clearly going too far to say that that is what memory *appears* to be on inspection. In general, it is with the inaccuracy and incompleteness of Hume's observation that Prof. Laird wishes to quarrel. Speaking as one phenomenalist to another, he argues that there is a whole class of phenomena which Hume has failed to observe. He does recognise of course that there are some things in experience which Hume's view does not explain; such things are memory, our belief in particular causal connexions, and the distinctions between 'physical' and 'mental' and between 'internal' and 'external' in the heap of perceptions (p. 174). But to press the argument that it does not explain these things, together with the further point that it cannot in the nature of the case be extended or refined so as to do so, is rather Kant's line of approach than that of Prof. Laird. The latter impugns Hume's *observation* of the nature of our consciousness of self. But it is not very clear what exactly are the phenomena which Hume is alleged to have missed. He did not notice, we are told, a 'quite special type of *given reflexive* continuity implied in our self-acquaintance' (p. 174). But are we aware of this continuity as itself *given* or do we know it must be there because it is *implied*? The language suggests that it is 'implied' that the continuity must be 'given'; in which event I suppose Prof. Laird is not blaming Hume for failing to observe it as 'given', but for failing to see that it is 'implied'. Again, it seems to be a highly doubtful statement to say that 'A *seems*, at least, to remember *his own* past only' (p. 173); though perhaps it is necessary to a thoroughgoing phenomenism to maintain that in the end I can remember nothing but my own experiences. But when I remember that 'the bishop wore red sleeve-ribbons at the christening', I do not *seem* to be remembering a past state of myself. Prof. Laird ends the discussion with the rather vague statement that 'there is *some* empirical sense in which, to use Ferrier's language, whatever I

consciously experience, is experienced *mecum*' (p. 174). To abandon hope of accurate statement in this way, and to leave it at that, is surely to descend to the convincing but unhelpful level of Dr. Johnson's refutation of Berkeley; and this seems especially inappropriate to a criticism of this discussion of Hume's, where the whole point of the argument lies in forcing the apologist for the self to put his finger on the *exact* spot.

In spite, however, of his unwillingness to involve himself in driving points home, Prof. Laird has, I think, through a series of comments on detail, built up a cumulative impression in the mind of the reader that Hume was far too ready, on principles which he did little to expose, to treat at once as *illusions* certain items which first-sight observation discovers in experience, and then to pass on quickly to explain the genesis of these 'illusions' in terms of more simple alleged experiences, the phenomenal reality of which he did nothing to verify. And perhaps this will do more than anything else to convince the reader how important yet difficult it is for the phenomenalist to find for himself an unexceptionable method.

It is not possible here to attempt to do justice to the last part of Prof. Laird's book. In the section on Ethics he differs with Sir L. A. Selby-Bigge on almost all the points in which the latter represents the *Enquiry* as, at least in its change of tone, 'really and essentially different' from the *Treatise* (pp. 237-241); and he points out interesting parallels with Cicero's ethical theory (pp. 241-243). To the discussion of Hume's Politics he allots six pages only (pp. 247-252), most of them being occupied with a discussion of the *Essays* and their relation to the political situation of the time. There is a careful account of Hume's views concerning Economics, discussing his relations with a large number of previous and contemporary writers, and discounting his originality on some points by including a summary of two *Discourses* by Nicholas Barbon (p. 257). In discussing the *History*, Prof. Laird defends Hume against the charge of borrowing his ideas from Voltaire; and makes in passing the interesting judgment that 'Hume, although a much greater philosopher than Voltaire, was a much less philosophical historian' (p. 266). He does not seek to make a case for attaching any great importance to Hume's *Æsthetic* theory, and after giving interesting instances of the philosopher's judgments as a literary critic remarks that these were in general 'frigid and portentously correct' (p. 278). The last chapter gives an exposition in some detail of the arguments of those parts of the first *Enquiry* which deal with theological topics, of the *Essays* on Suicide and on Immortality, of the dissertation on *The Natural History of Religion*, and of the *Dialogues Concerning Natural Religion*. In connexion with the latter, Prof. Laird discusses the question how far Philo's views are to be taken to be those of Hume; but he offers little or no criticism of doctrine or argument in this section.

In conclusion, it should be repeated with emphasis that we are

given in this book rich material for a definitive work on the philosophy of Hume. It is impossible not to see on almost every page evidence of how brilliantly Prof. Laird might have carried out that work had he wished. It is no doubt ungenerous to criticise hardly what are after all simply faults of omission, when we are lavishly presented with the collected results of so much acumen, selective judgment and learned industry. But it is difficult not to do so when again and again in reading our brightest hopes are raised and not fulfilled. As a collection of material, it is impossible to over-estimate the value which this book will have for serious students of Hume. But it should not really be judged as a sustained argument to support the thesis that Hume 'set out to lay the foundations of pure sensory phenomenalism' (p. 25), nor as a reasoned vindication of a final judgment on Hume's 'science of man', whether on the whole it ultimately issued in a positive contribution to knowledge or in universal scepticism.

C. R. MORRIS.

Études sur le rôle de la pensée médiévale dans la formation du système cartésien. By ÉTIENNE GILSON. *Études de Philosophie médiévale*, XIII. Paris: J. Vrin, 1930. Pp. 336. 40 fr.

In this volume, of the first importance to students of Descartes, Prof. Gilson continues the exploration and exploitation of that rich *terrain* with which he is probably more intimately acquainted than any other contemporary scholar. These *Études* present the results of a further application of that method which yielded him so full a harvest in 1913 and 1921, and which consists in confronting the Cartesian philosophy with the mediæval thought in contact with which it was elaborated. Not that, with M. Gilson, such *confrontation historique* betrays the naïve conviction that Descartes was really a Scholastic thinker—the last of the mediævals and not the first of the moderns; but that the profound character and originality of the Cartesian revolution and the motives for the reconstruction it inaugurated cannot be rightly understood or precisely formulated except by appreciating its connexion with the common teaching of the Schools. We must set aside the prejudice that to study modern philosophy as a function of the mediæval is necessarily, or is simply, to study what modern philosophy has preserved from the mediæval. M. Gilson's attitude is rather that it is impossible fully to understand a philosopher if we are unaware of a doctrine which that philosopher had constantly present to mind while he was elaborating his own. Accordingly, his object is to determine the exact sense and import of certain central theses in Cartesianism, by re-instating them in the doctrinal *milieu* in which they were developed, and by

contrasting them with convictions of the thinkers before whom, against whom, and for whom Descartes worked into definitive form his own body of doctrine. M. Gilson consequently defends the inclusion of his book in a series devoted to mediæval philosophy on the ground that "l'histoire de la philosophie médiévale inclut celle de son influence, comme l'histoire de la pensée moderne inclut celle de ses sources."

The work divides into three parts. The first 140 pages are occupied with three chapters (*viz.*, 'L'innéisme cartésien et la théologie'; 'Descartes, Harvey et la scolastique'; 'Météores cartésiens et Météores scolastiques') drawn from the *Études de philosophie médiévale* (Strassburg, 1921), which has been for long out of print. The seven chapters of the second part (120 pages)—which alone will be noticed here—comprise mainly materials hitherto unpublished and the text of lectures delivered at the Universities of Brussels and London. Lastly there follows an appendix (70 pp.) occupied with lengthy critical notices on recent works of Cartesian interest by MM. Blanchet, Gustave Cohen and H. Gouhier, together with Gilson's article, 'Spinoza, interprète de Descartes' (*Chronicon Spinozanum*), and a *recueil* of Scholastic criticisms and observations on Cartesianism, transcribed from unpublished MSS. in the Bibliothèque of Tours.

If the table of contents and the title of the volume suggest that the topics of which it treats present great diversity and little if any unity of theme, two readings of the book convince one how false is the suggestion. The subjects of 'substantial forms', 'Thomist and Cartesian proofs of divine existence', 'Anthropology, Thomist and Cartesian', may appear miscellaneous and unconnected. M. Gilson shows, however, that it is consideration of precisely these conceptions, their connexions and the order of those connexions, which constitutes the *fil conducteur* for the re-assembling of his Cartesianism. "From the outset," he declares (p. 141), "Cartesian physics presented itself to us as a new ferment working and assimilating a mass of old ideas, so that the Cartesian metaphysics appeared what Scholastic metaphysics becomes in a universe that contains nothing but extension and movement." With consummate skill M. Gilson discloses the conditions under which this transformation is effected, the several steps by which fundamental Scholastic conceptions undergo a transmutation so subtle as to issue virtually in their exclusion from Cartesianism. Nor is it by accident that the first of these Scholastic conceptions on which M. Gilson fastens is that of 'substantial form', for this it was that "conditioned the entire edifice" of Scholastic physics. Descartes's destructive criticism of this conception opened out the way for his brilliant and original speculation, *viz.*, that a physics could be developed by a method which is simply a generalisation of that employed in mathematics. Moreover, until substantial forms had been extirpated root and branch, anything like the Cartesian physics or a deduction of its detailed propositions was, in

principle, just impossible. So, that Descartes's first care (apart from specifically scientific research) should have been the destructive criticism and rejection of these forms, was of the greatest moment (i) tactically (for otherwise there could have been no Cartesian physics, hence no Cartesian philosophy); (ii) 'epistemically' (for otherwise the new method itself could not have been theoretically developed or actually applied); and (iii) 'constitutively' (for until purely qualitative forms and occult faculties were replaced by quantitatively determinable natures, intelligible concepts fitted to serve as primitive notions in a deductive system of physics would be lacking, consequently a natural science, completely intelligible and certain, would not be even theoretically possible). Descartes's capital complaint against the Scholastics is, then, that they reduced so much to substantial forms as to cut away, in the end, all possibility of intelligible explanation in physics. His own natural philosophy is to show, once for all, that there is not a single class of natural phenomena which cannot be wholly accounted for by mathematical concepts and principles. To liberate physics from the illusions previously encumbering it is, in turn, made possible by application of the "real" distinction between mind and matter, for "at this precise moment, Descartes saw for the first time that sensible qualities, faculties, and substantial forms must give place to extension and movement". That distinction, then, furnishes a basis from which the elimination of forms may be justified, and inversely, the verification the new physics incessantly receives has to render that distinction final and convincing for thought—"Deux intuitions, l'une scientifique, l'autre métaphysique, nées de l'unité d'une même pensée, prennent ici conscience de leur accord profond et de l'intime parenté qui les unit." Metaphysics must "*fonder*" the physics, and the physics, *per contra*, must confirm the metaphysics by the decisive advances that accrue from its submission (p. 167). Thus, in Descartes's eyes, Aristotelian and Scholastic physics rest on the assumption that "the child's universe is the real universe". Consequently their effect is to "consecrate and stabilise the errors of our early years" concerning the status of forms and qualities generally.

The essential *pièces* for discussing the place and relation of Physics and Metaphysics in Cartesianism are assembled. On this question, M. Gilson proposes an "interprétation plus souple" than that customarily given. While agreeing with Liard and Lévy-Bruhl that it is his new mathematical physics which leads Descartes towards a metaphysics in which mind and matter are fundamentally disparate, M. Gilson denies that this metaphysic follows necessarily from that physics, and for two reasons,—*viz.* (a) Descartes need not have elaborated a metaphysics at all, and (b) starting with the same scientific data, he could have elaborated quite a different metaphysic from the one he did (p. 175). Descartes's real attitude to the matter is, indeed, a downright refusal to consider their separation

possible. His mathematical physics do not contain the sufficient ground of his metaphysics; on the contrary, it is the latter alone that effectively permits him to transform the results obtained by applying the new method to scientific data into a "Physics", or, as he called it, a "Philosophy". When Descartes speaks of Philosophy it is of the physics of *Le Monde* he is thinking,—not of metaphysics nor of what we to-day mean by philosophy (p. 176). Hence, the point of his criticism of Galileo (that "Galilée se trompe en physique parce qu'il n'a pas de Philosophie") is precisely that his science is inadmissible "parce qu'elle croit pouvoir se passer de métaphysique" (p. 177). In Scholastic teaching generally, physics precedes metaphysics, but it is "une exigence proprement cartésienne que de faire passer la physique après la métaphysique dont elle se déduit."

In chapter iii., M. Gilson turns to Descartes's proofs of God's existence, on which he has new things to say. He thinks these proofs are often far from correctly expounded because we do little or nothing to place ourselves in the position of the readers whom Descartes was addressing. To them, these proofs were at once familiar and strange: familiar, because, like the Thomist proofs, they depend ultimately on the principle of causality; strange, because, instead of proceeding like the Thomist proofs from particular existents or *sensu* to God, they introduce what appear to be a number of extraneous and useless complications. For Descartes sets off, not from 'things' but 'ideas'; the *Cogito* prevents his doing otherwise. But for the Scholastic reader, ideas were not real existents, therefore they did not require a cause. So Descartes's attempt to find causes for them could only appear very curious and rather perverse, as well as unnecessary. The task immediately confronting Descartes is to show how minds "mal purifiés par une insuffisante pratique de la 1^{re} méditation", "mal libérés du sensible par le doute", for whom (as for Thomas) body is 'more easily known' than mind, should be able to conceive the idea of perfection. It is really to help the Thomist reader adjust his mind to the seemingly strange extension of causality to ideas (and in particular to the idea of perfection) that Descartes supplements the 'ontological' argument by what M. Gilson regards as, not a second, distinct proof, but a "different form" of the same argument, *viz.*, a causal argument in which the effect to be explained is not an idea pure and simple, but the "sensible being" possessing it. What is usually taken as a separate proof is, for M. Gilson, nothing but an "artifice pédagogique",—"une *manuductio* d'apparence sensible à l'usage du lecteur scolastique" (p. 212). To deny this is to maintain that Descartes is propounding a proof of the same logical type as that of Thomas and so exposing himself to the very objections he would himself bring against Thomas's proof.

How fruitful is M. Gilson's method of *confrontation* is illustrated again in chapter v. by the precision with which he is able to deter-

mine just what is original in Descartes's "new idea of God". That there *was* anything new in it may surprise many who suppose themselves well acquainted with Descartes, for, while his proofs of God's existence are commonly regarded as novel, the God he supposed them to prove is usually assumed, without more ado, to be the God of Scholasticism. In exhibiting where the difference lies, M. Gilson also shows why it was impossible for Descartes to avoid reaching his new conception. The novelty accrues ultimately from a different interpretation of "exister par soi", and from a different conception of causality. For the Scholastic philosopher, 'cause' (i.e. 'efficient') is *necessarily* anterior to, and other than, its effect. It is always in virtue of its nature that anything is a cause. But once things have been purified of Aristotelian forms and natures, Descartes finds left in them nothing to which he can attribute their causal efficacy and operation, therefore nothing in the nature of things which differentiates cause from effect. The cause, then, far from being anterior to its effect, is contemporaneous with it,—its causality, in fact, consists in nothing else than its actual producing of the effect. From so radical a difference in the conception of 'thing and its causality', there follow consequences that are important and characteristic of Cartesianism. To the notion of God's self-causation, the Scholastics can give only a negative meaning (*viz.*, existent but caused by no other efficient cause). Descartes, however, thought to provide a positive meaning, and M. Gilson exhibits, with admirable lucidity, (i) what Descartes thought that positive meaning was, and (ii) why he was logically *compelled* to work out that meaning. He observes, respecting (i), that Descartes saw quite clearly that he had a prior question to face, *viz.*, whether a cause that is not anterior to, and distinct from, its effect is even conceivable. Having decided that it is, Descartes proceeds to argue (however legitimately in a mathematician, quite unpardonably in a philosopher, it seems to me) that the concept of efficient cause "se peut étendre en la même façon que nous avons coutume d'étendre en géométrie le concept d'un polygone rectiligne qui a une infinité de côtés au concept du cercle". Analogously, the positive essence of God is declared "une cause efficiente qui se donnerait l'existence, sans cesser pour cela d'être une essence réalisée" (p. 231). The case for (ii) is briefly as follows. If God's existence is ever to be proved, it can be only by an argument from causality (ground common to Descartes, Anselm and Thomas). Now causation is an absolute and universal principle. Hence, to admit the legitimacy of its employment in establishing the *fact* of God's existence, and yet deny its applicability to explain the *origination* of that existence, would be logically outrageous. If its application is valid in the one case, so must it be in the other—"si l'on peut remonter avec Descartes du créé jusqu'à Dieu, l'ascension ne demeure possible qu'à la condition de porter jusqu'en Dieu même le principe de causalité" (pp. 231-232). So, "refuser d'effectuer ce passage à la limite"—refusal to "intercaler" the power of God between his

essence and existence (in which this new conception of God consists)—is “mettre en échec la nécessité du principe de causalité, nier sa valeur de principe et rendre impossible la preuve de l'existence de Dieu” for Descartes and Thomas alike (p. 231).—M. Gilson moves here with enviable ease from Scholastic to Cartesian standpoint and shows great penetration in reconstructing the situation which impelled Descartes to work out this new idea of God. And the idea is unquestionably novel. Yet I would question two things: (1) Whether the new sense of divine causality *is*, after all, one that we can clearly conceive—even with the aid of M. Gilson's rather arresting comment (p. 233) that this “idée de Dieu est beaucoup moins une pensée qu'une manière de penser ou, plutôt, un pouvoir de penser d'une certaine manière”. (2) Whether this idea of God (in which his power is interposed between his essence and his existence as an “intermédiaire nécessaire”) can, when taken with the new interpretation of self-causation, be reconciled with the well-known definition in *Med. III*.

In the sixth chapter, ‘Divine Veracity and the Existence of the External World’, several vexed points of exegesis are raised and treated with M. Gilson's customary perspicuity. Here too we see banished once for all that rather stupid ‘bogey’ of the ‘Cartesian circle’. To anyone familiar with the mind of Descartes it is just incredible that he committed “le plus grossier des cercles vicieux” of which he is charged by some compilers of summaries and histories. From such blundering “criticism” they would have been saved by a reasonably detailed examination of the text itself. M. Gilson's defence, indeed, largely acquires its force because it is, at each step, based on Descartes's considered word. (Hamelin and other French scholars had, of course, each in his own way, already exploded the idea.) He observes that though the formula of Cartesian certitude is simple, nothing is more difficult than to interpret it correctly. And the meaning he assigns to the principle of divine veracity has the double merit of showing that Descartes is not guilty of the absurd circle, and of facilitating his treatment of the vexed problem of Descartes's proof of the existence of an external world. (1) That clear and distinct ideas are true means for Descartes that “evidence” is its *own* guarantee and needs none other: “elle ne se mesure pas, c'est elle qui mesure tout le reste”. Not that every subjective impression of certitude is a sign of “evidence”—Cartesian evidence “ne se tient pour un sentiment légitime que lorsque celui qui l'éprouve a tout fait pour le mériter”: *i.e.*, what is taken *as* evidence must be subjected to continual criticism and must resist in turn each reason that can be conceived for doubting it—for, as M. Gilson has already insisted (p. 186 *et seq.*), the 1st *Méditation* “n'est plus une théorie à comprendre, c'est un exercice à pratiquer”. The introduction of an “all-powerful deceiver” is not therefore designed to furnish a complementary support to Cartesian ‘evidence’. (I do not share the author's view that Hamelin, in interpreting

the significance of the 'malignant demon', has 'embroidered' on Descartes's meaning). So the position is—in general, that "rien ne peut infirmer ni garantir l'évidence": in particular, that the evidence of the *Cogito* and of God's existence are exempt from the all-powerful deceiver. When either of these propositions is examined, its truth is straightway intuited—its evidence *invariably* accompanies it. But most premises from which we reason are not so certified: many are accepted on the strength of present memory where we claim now to remember that *in the past* those same propositions were *intuited* by us. But memory is not infallible: "le souvenir d'une évidence n'est pas une évidence". Hence arises a need to guarantee—not the evidence of intuited truths, but our present belief that we are genuinely remembering past intuitions, since, "le souvenir seul demeurant, nous ne jouissons plus de cette intuition" (p. 237). "L'évidence peut se suffire et se suffit, mais elle ne garantit pas l'infailibilité de la mémoire". Now the '*Cogito*' and the idea of God's existence are invariably attested by their own evidence, hence neither needs a guarantee, but the third proposition—that which, indeed, the whole metaphysic is organised to establish (*viz.*: the existence of an external world and of its ultimate dispartateness from mind)—is *not* seen to be evident or necessary, hence a guarantee is required for it. Thus the central point seems to be that denial of my own or of God's existence would be a denial of a present intuition, but denial of the existence of an external world is a denial not of present intuition but of present *inference*, and inference depends for its premises on memory. Thus once we observe Descartes's careful distinction between 'present evidence' and assumed evidence based on present memory, and grant the non-inferential character of the 'ontological proof', the charge that Descartes first uses 'clearness and distinctness' to guarantee God's existence, and then uses God's existence to guarantee the truth of clear and distinct ideas, is seen to be groundless. (2) M. Gilson rightly stresses that Descartes is well aware that the clearness and distinctness of the idea of extension shows that an external world is logically possible, but that it does not alone establish the actual existence of that world. But I have some misgivings about M. Gilson's views that Descartes held (α) that our idea of extension had not so great an objective reality that it could not be explained by thought alone (p. 240); and (β) that our *image* of extension contains in itself nothing confused and so lends itself to strictly rational treatment (p. 241). Concerning (α) everything plainly turns on how the causation of the formal and objective reality of an idea is understood. If, as I believe, Descartes held that an idea is explained only when *both* are assigned, and that the cause of an idea's formal reality is never the cause of its objective reality (except when the idea is an introspective one), then it follows that he cannot mean that "la pensée seule" could cause the objective reality of the idea of extension, but only its formal reality, as indeed the formal reality

of any other idea. Concerning (β) "our image of extension" (as distinct from the concept of it) is, I suppose, an expression to indicate indifferently such general representations as, *e.g.*, that of unbounded space (imaged, say, as a sort of homogeneously coloured mist) or such particular representations of geometrical figures as, *e.g.*, those of points, lines (imaged as spots, two-dimensional lines approximately straight, or curved), etc. Now it seems incredible that Descartes of all people maintained that such a sense-qualified image "n'a rien en soi de confus", and that "elle se prête d'elle-même à un traitement rationnel" (p. 241). It is, M. Gilson admits, quite otherwise with "those involuntary, confused states" properly called sensations. These, one and all, are *vitiated* by their confusedness, and that inseparable element renders them *au fond* irrational. Hence sensations cannot possibly be explained by the essential attribute of thought, for this, being intrinsically intelligible, is incapable of producing of itself anything confused (p. 242). Why M. Gilson does not argue analogously when images, and not sensations, are in question, I cannot discover,—unless it be (*cf.* the rather obscure hint, p. 245) that, unlike sensation, imagination requires no more than 'contact' of mind with body, and not their genuine union ("union substantielle"). Here his customary lucidity wanes awhile. He usefully emphasises, however, that Descartes is fully aware that the confusion of confused ideas requires explaining no less than the distinct factors in clear ones, and the attempt introduces the last of the capital problems that he examines, *viz.* how sensible quality ("le confus"), "expulsé de la matière . . . puisse se réfugier dans une pensée cartésienne" (chap. vii.). Proof of the actual existence of a material world epistemically depends on just these elements of confusedness and involuntariness characteristic of our sense-awareness. And since we must here assume "une sorte de violence infligée du dehors à la pensée, une sorte de confusion de natures qui explique la confusion de la connaissance", it seems to follow that Descartes's proof of an actual external world implies the union of mind and body, and further, their "substantial union". For "le confus" would be inexplicable, the distinction of body and mind no more than probable, were their union but accidental and "sans influence sur le contenu des substances intéressées" (p. 245).

So the real distinction of mind and body, and the destruction of substantial forms it entails, is possible only so long as one exception be made. That substantial form which consists of the soul's union with its body, must be retained. Proof of their qualitative disparateness is impossible apart from the fact of their existential connectedness: they must be really so united as to form together a substance. M. Gilson offers an ingenious argument to deny there is any real inconsistency here. The erroneous use of substantial forms that Descartes corrected (*viz.* their extension to and within physics) itself presupposes that in *some* (non-physical) context, the concept does have valid application;—"puisque l'homme a

inventé les formes substantielles en étendant au monde de l'étendue son expérience personnelle, il faut bien que cette expérience soit celle d'une forme substantielle. La copie peut être fausse, mais on n'en comprendrait même pas l'existence si le modèle n'était pas vrai" (p. 247). Hence, when pressed to explain in what, on his premises, this union can consist, M. Gilson replies for Descartes: 'Conceive it as you suppose yourself to conceive the other substantial forms (e.g., weight), for this (union) really exists, while the others do not' (p. 248). Thus Descartes, whose whole metaphysic aims at eradicating substantial forms on the ground that we can form no clear idea of them, now sends us back to them when we seek a clear idea of the connexion between body and mind! Presumably it is to avoid this paradox that he allows us "une notion particulière pour concevoir cela". The difficulties on this point that so embarrass certain commentators accrue, M. Gilson suggests, from insufficient attention to the exact language Descartes allows himself to use. This "special notion", he urges, should be taken as being, not an innate idea of understanding, but "une idée adventice de l'ordre de la sensibilité", a "perception sensible comme les états de plaisir ou de douleur . . . tout ce que Descartes veut dire, c'est que la distinction de l'âme et du corps se pense, au lieu que leur union se sent" (p. 249).

Despite M. Gilson's persuasive advocacy and the plausibility of the reconciliation he proposes, three serious difficulties to his interpretation suggest themselves: (1) His interpretation of our knowledge of the union being a "confused perception" which "se sent" but does not "se pense", appears to conflict with Descartes's plain inclusion of this "notion" with a number of *simples natures*,—or ideas of them—of which none is "confused sensation" but all are certainly clear and distinct ideas (cf. *letter to Elisabeth*, 1643: *Oeuvres*, edn. Adam and Tannery, iii., pp. 664-667). (2) But if it were the case that "confused perception" were the only 'knowledge' possible to us of that union, a distinct idea of it being never possible, surely that should be a sufficient reason for denying any real, substantial union at all. For, all said and done, what Descartes's readers want to know is not how a 'half-clear' meaning can be found for the connexion asserted ("concevez-la comme vous croyez concevoir les autres formes substantielles"), but what wholly clear and distinct meaning can legitimately be found (*i.e.*, within the provisions of the system) for speaking of the union as being 'substantial'. Descartes's metaphysic itself certainly requires it—the fact of union is presupposed. But can the presupposition be made good? I suggest that it cannot, because justification—it is of the very essence of Cartesianism to maintain—is always from 'idea' and never from 'thing'—and further, from the *clearness and distinctness* of the idea. How, then, on M. Gilson's interpretation of our knowledge of the union of mind and body, should Descartes be entitled to assert that they really are united? It may well be, however, that the failure here

lies with Descartes and not with M. Gilson—that M. Gilson is, in short, attempting the impossible if he is attempting to uphold Descartes, and not simply to show what were the considerations that led Descartes to assert what he did assert. (3) Lastly, does not M. Gilson rather under-estimate the gravity of Descartes's problem? However our 'knowledge' of the union is to be explained, and however necessary it may be for Descartes to show it to be knowledge of a substantial, and not an accidental, union, that it *could* be the former seems to me impossible. (Le Roy's view that on Cartesian principles man *can* be only "a being *per accidens*" seems correct, however distasteful to Descartes: cf. *Notae in programma quoddam*). For what is at issue is not the possibility of a 'union of composition' in which the constituents are two independent *substances*, as M. Gilson suggests, but the possibility of a unity in which the constituents are (a) a substance (some particular self), and (b) not a substance but a *mode*. For Descartes there is no plurality of material substances corresponding to the plurality of mental substances—but only a single material substance (all matter) of which 'particular bodies' are parts. Thus Descartes's problem is to connect intelligibly, by exhibiting a necessary relationship, a *mode* of matter with a spiritual *substance*.

To conclude, it should be evident how amply M. Gilson's book illustrates the truth of his declaration (p. 189) that Descartes's criticism of substantial forms gives the six *Méditations* their full sense and import. That critique, we saw, leads, negatively, to their rejection; positively, to the distinction between mind and matter—the culminating point of his metaphysics and the principle of his mechanistic physics. But to show that this physics, liberated from every substantial form, is not simply a theoretically possible system but one really explicative of actually existing nature, return must needs be made to substantial form, *viz.* that of the union of mind with body exemplified in man.—To M. Gilson falls the distinction of being the first to exhibit with such thoroughness the rôle and importance of Descartes's criticism. So vivid is the impression created in our mind by his meticulous labour of historical confrontation, criticism and reconstruction that we seem to be passing again over the very ground that Descartes passed, re-thinking his thoughts. And, what is of more moment, we come to realise what really *was* the Cartesianism of Descartes. Thus the book should be a timely corrective to that semi-Kantian Cartesianism which has so 'warped' Descartes's proper doctrine until it appears as, in the main, an epistemological theory in which the theme of innate ideas is but the prelude to a later symphony of forms and categories. This distortion results largely, in my view, from a failure to carry the doctrine of simple natures right through the whole metaphysic. Usually simple natures receive scant notice, and even this only while the *Regulae* are under examination. Thenceforward they are lost from sight or identified with innate ideas, so giving that false,

subjective 'twist' to popular Cartesianism. Were it not ungracious to wish for more where M. Gilson has given so much, one would welcome his assistance in establishing the proper place and function of simple natures within Descartes's system, in a way complementary and analogous to that in which he has elucidated the place and function of the critique of substantial forms.

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Ethical Relativity. By EDWARD WESTERMARCK. Kegan Paul, Trench, Trubner & Co. Ltd. (International Library of Psychology, Philosophy and Scientific Method), 1932. Pp. xviii and 301. 12s. 6d. net.

PROF. WESTERMARCK'S latest work comes at an appropriate time. Plain men everywhere, in commercial and political, as well as in undergraduate, circles, are questioning the 'validity' of set moral standards, and there is some uneasiness, even among the wise and prudent, about the existence of any standards at all. It is good, therefore, to have before us an up-to-date philosophical defence, soberly and systematically expounded, of the view that moral judgments have no objective value, being grounded in emotions. It is good, on the other hand, that an author of great learning like Prof. Westermarck, an author who appears to be familiar at first hand with every possible shade of both sympathetic and opposing opinion, and who is scrupulous in giving chapter and verse for his every statement, should put up a thesis which will make objectivist philosophers think over again the fundamentals of their position. For in this thing popular feeling and the majority of philosophical opinions are poles apart, and there has been a kind of renaissance in objectivist ethics, at any rate in England.

Prof. Westermarck begins by considering, and rejecting, the views of representative authors, who hold the objectivist view of moral judgments implied by 'normative' ethics. The objectivity of moral values means (p. 3) that they have a real existence, apart from any reference to a human mind, that they are not reducible to what people *think* to be good or bad, right or wrong. Among objectivist moralists there is, Prof. Westermarck points out, great diversity of opinion about the fundamental principles of the subject. Whereas the other sciences show a tendency to increasing agreement, ethics, he thinks, has few or no principles which command universal assent. In endeavouring to establish this criticism he deals in turn with the views of Mill, Sidgwick, Spencer, Stephen, Paulsen, Bradley, Rashdall, and Hobhouse. In chapter i. the most interesting passages are perhaps those relating to Sidgwick. He criticises (p. 9), with success, I think, Sidgwick's 'axioms' of rational benevolence, and the principle that it is right to do what conduces

to happiness, showing that they do not fulfil, or even approximately fulfil, the four conditions which Sidgwick himself (*Methods of Ethics*, 387 sq.) urges must be approximately realised in any enquiry which is to lead to trustworthy conclusions. The principle of rational benevolence is not only not self-evident, but its adoption would cut across our moral common sense, as, *e.g.* (pp. 13, 14), in the case of competition. The principle of justice he finds true, but tautological, tautological because rightness itself already *means* disinterestedness or impartiality. Sidgwick, he believes (p. 15), completely failed to prove the objective validity of any moral rule, even the principle of utility itself.

Chapter ii. deals mainly with the notion of self-evidence and with the origin of the belief in objective validity. The first important question is, not whether moral faculties exist, but whether there are self-evident or axiomatic moral propositions. A self-evident proposition is (after Prof. Moore) a proposition which is true by itself alone and is not an inference from some other proposition than itself. And as regards the truth of such propositions, though the appearance of truth, even universal assent about this appearance, is not proof of the validity of a judgment, yet absence of disagreement among experts is an indispensable negative condition. Prof. Westermarck concludes (p. 44) that the great diversity of opinion among moral specialists with regard to propositions assumed to be axioms, shows that "none of the various theories of normative science can be said to have proved its case: none of them has proved that moral judgments possess objective validity, that there is anything truly good or bad, right or wrong, that moral principles express anything more than the opinions of those who believe in them".

How, then, does the erroneous belief in objectivity arise? One reason is (p. 46) the practical dogmatism of common sense which is unwilling to admit moral conviction as a mere matter of opinion: this dogmatism is shared by the philosophers. A prejudice is taken for an argument. But the main reason for belief in objectivity lies in the history of the moral consciousness of mankind. Such facts as that our moral opinions and customs are relatively uniform, and that they are reinforced by education, public opinion, tradition, law, religion, the influence of great personalities, etc., combine to establish an almost ineradicable conviction, but no proof, of objectivity.

Prof. Westermarck now (chaps. iii. and iv.) goes on to show not merely that there is no proof of objectivity, but positively that there *cannot* be objectivity (p. 60), because all predicates of moral judgments are ultimately based on emotions, and no objectivity can come from an emotion. Moral emotions are of two kinds (pp. 62, 63): moral disapproval or indignation, and moral approval. These belong to a wider class of emotions: retributive emotions, of which there are also two kinds, non-moral resentment (of which non-moral anger and revenge are sub-species) and retributive kindly emotion (of

which non-moral gratitude is a sub-species). Moral emotions are later (p. 90 *sq.*) distinguished from non-moral emotions in that moral emotions are held to be 'disinterested' and 'impartial'.

There now follows a long and interesting discussion, which I must pass over, of the development of moral consciousness from its non-moral antecedents. Non-moral resentment becomes modified and refined and moralised in various stages. We pass from non-moral resentment to revenge, and from revenge to punishment, which is in turn modified by the injunction to forgive. The progression from non-moral to moral is the transition from irrational personal unregulated feeling to impartial disinterested feeling. Prof. Westermarck gives us (p. 78 *sq.*) a stimulating account of punishment, arguing that no theory which ignores the existence of disinterested resentment and the retributive feeling which involves a desire to inflict counter-pain (p. 85 *sq.*) can be satisfactory. Punishment includes among other things a kind of hatred, though moral hatred, and we hate, not merely the sin, but the sinner (p. 85). The chapter concludes with a discussion (p. 86 *sq.*) of retributive kindly emotion.

Chap. iv. continues the discussion of the moral emotions. A vital question is, Do moral emotions "only arise after and in consequence of an intellectual process through which the moral quality of a certain course of conduct has been discerned" ? (p. 89). Or is the moral emotion antecedent to the judgment ? Prof. Westermarck says emphatically that it is. "The moral concepts, which form [the predicates of moral judgments] are ultimately generalisations of tendencies to feel either moral approval or disapproval with reference to that of which those concepts are predicated" (p. 90). And he goes on to show, after a discussion of origins, that disinterestedness, particularly the disinterestedness of sympathetic resentment, has arisen from the effect of custom. Custom (p. 110) is fixed for all, and admits of no purely personal preferences : it is disinterested.

Chapter v. deals directly with the problem of the nature of the moral concepts. The theory of the emotional origin of moral judgments, though not implying the actual existence of an emotion in the mind of the person judging, does imply that moral concepts are generalisations, derived from approval or disapproval felt, and that they are tendencies to feel one or other of the moral emotions interpreted (p. 114) "as qualities, as dynamic tendencies, in the phenomena which gave rise to the emotion". As we call things fearful because people fear them, so we call things good or bad because they have evoked moral emotions in ourselves or in other persons who have interested us (p. 115). This fallacy of words is yet another cause of the erroneous belief in objectivity.

All the moral concepts alike are derived from the two opposite moral emotions of disapproval and approval. And they must be classified under two heads. Those grounded in disapproval come first (for disapproval has played a more important part in the moral

consciousness of man than approval (p. 122)). They are the notions of ought, or duty, right, justice. Based on moral approval is the general concept of good. Virtue, again, denotes a more special kind of goodness which we approve, whilst merit suggests quite definitely the attitude of praise.

The contents of the interesting second half of the book can only be briefly indicated, but in any case the positive constructive argument is contained mainly in the first half. Chapter vi., on "the subjects of moral judgments" argues that in the end it is on character rather than on particular intentions or deliberate wishes that we pass judgment. We praise or blame persons, or persons' wills conceived as the cause of their conduct. This general contention is borne out by an examination of early custom, law and belief.

Chapters vii., viii. and ix. deal mainly with the bearing of the history of morals on the problem of objectivity. "It has constantly been argued, against ethical subjectivism, that the variety of moral judgments no more justifies the denial of ethical objectivity than the diversity in judgments about the course of things disproves the objectivity of truth" (p. 183). Prof. Westermarck says that the validity or fallacy of this argument depends in the first place upon the causes to which the variability is due. His argument (though I am not entirely clear about it) is that if the variability of moral judgments, say as between our point of view and that of savages, is only due to insufficient knowledge, or to inadequate reflection upon the subjective or objective condition of lives other than our own, then obviously this does not in itself clash with the notion of universal objective validity. The killing of old and helpless parents, infanticide, human sacrifice, all of which appear to us appalling and atrocious, may have their own justification, of which, if we could understand it, we ourselves should approve. On the other hand, in spite of a greater uniformity of opinion than we sometimes suspect, there are very real differences, as for example the differences in the range of persons to whom moral rules have reference. Among primitive peoples moral rules regarding life, property, and human well-being tend to apply only to members of the same community or tribe. Where we generalise, they particularise. These facts, and real variations in the altruistic sentiment, Prof. Westermarck appears to think really do clash with the universality which is implied in objectivity.

The last two chapters, viii. and ix., deal with the emotional background of moral theories, mainly utilitarianism, intuitionism, and Kantian rationalism. Hedonistic utilitarianism is grounded in the moral retributive emotions; "moral approval being a kindly attitude of mind towards a cause of pleasure and moral disapproval a hostile attitude of mind towards a cause of pain." (p. 227). Again, (p. 228) moral approval is *disinterested* (giving the element of justice in the utilitarian theory), and the expansion of the altruistic sentiment is the ground of the *universalistic* element in utilitarianism.

Similar explanations would apply to theories like 'energism' or 'eudemonism'. Intuitionism is explained (or explained away) by saying that intuitions *are* emotional tendencies, formulated as judgments, which give moral values fictitious objectivity. Kant has the whole last chapter to himself, perhaps here an unnecessary luxury. But Prof. Westermarck is anxious to remind us of the emotional background of Kant, of his awe and reverence for the moral law (p. 267), of his prohibitiveness, of his passion for the disinterestedness of duty, of his humanitarian feeling (after Rousseau) in the maxim "So treat humanity . . .", because these and other factors in Kant's emotional make-up appear to justify Prof. Westermarck's thesis so well. It enables Prof. Westermarck to congratulate himself that if he has succeeded in reducing the theory of the greatest of all rationalists to an emotional basis he has given much additional strength to the main contentions of his work.

The first and perhaps the final question raised by this book is the often-discussed one of origins and validity. What is the bearing of origins on ethics proper, and what *is* ethics proper? Is Ethics (a) the history of opinions and customs, or is it (b) an account of the contents and objects of the most highly developed moral consciousness? Or (c) are these alternatives not exclusive, and can (a) be said to have any real bearing on (b)?

Prof. Westermarck, who knows as much of the history of customs as anyone, would not, I think, argue that ethics is identical with this history. He would certainly acknowledge (b) to be important. But he would also urge that (b) is meaningless without a careful consideration of (a). His answer to (c) would therefore be an emphatic affirmative.

The answer we ourselves give will depend on whether we agree, or disagree, with Prof. Westermarck's thesis that moral concepts and judgments are derived from 'emotion' and not 'reason'. If I hold that I apprehend certain moral propositions to be true in *exactly* the same sense as I apprehend logical or mathematical or scientific propositions to be true, then the only question of any importance is, whether they *are* true. What is relevant, and what is relevant only, is the *evidence* (or the self-evidence), and no reference to the psychology either of myself or of my ancestors, and no reference to anthropology, has any relevance whatever. In geometry it would be merely ridiculous to go into such questions, and if ethics is like geometry it will be equally absurd. Ethics, however, is obviously *not* entirely comparable to geometry. The relation between our moral judgments and our emotional life is pretty close, particularly at some points, and this makes the thesis, Prof. Westermarck's thesis, that moral judgments are ultimately but the outcome of our emotional states at least *prima facie* an open question. To say that good and bad are held, or were held originally, to be good or bad on account of their tendency to arouse emotion (p. 262) is not ridiculous, but an important philosophical proposition. So even if

in the end we cannot agree that Prof. Westermarck establishes his thesis, even if we hold that the developed moral judgment is not the outcome of emotion but of rational insight, there is still the important fact to be considered, that emotions tend to be related to moral judgments as they are not related to purely scientific judgments. If we disagree with Prof. Westermarck's thesis about emotion, we must relegate discussion of origins to a secondary or tertiary place; but we must also be clear in our own minds about the relation between moral emotion, which may cloud and obscure issues, and moral judgment. If, on the other hand, we agree with Prof. Westermarck that moral judgments are fundamentally grounded in emotion, and are not fundamentally rational, then we shall be bound, in ethics itself, to consider with him the history of origins.

What, then, is the relation of moral judgment to moral emotion? Is emotion the ground of moral judgment, or is it the consequence?

Although Prof. Westermarck's main thesis is plainly enough stated (pp. 89-90, pp. 114-116) and is that moral concepts are generalisations of tendencies to feel emotion, yet I am not clear about his general psychological position. He appears to admit (p. 216) that moral emotions depend upon cognitions, and on page 59 he says that emotions depend on cognitions and are apt to vary according as the cognitions vary. But is Prof. Westermarck prepared to be consistent with these statements? Putting it differently, What is the relation of emotion to cognition and conation? Surely an emotion, or, less vaguely, an emotional psychosis, is not what so many writers, Prof. Westermarck included, seem to imagine, a mere boiling up of a mind-and-body which causes the mind to see objects in its own colours? Rather is emotional psychosis a mental disturbance (involving also, and involved by, bodily disturbance) more or less vividly felt, and with pleasurable or painful tone, but containing and conditioned throughout by cognition and conation. Sympathetic and purely organically conditioned emotions apart, we experience emotion because, first, we *cognise* something; and because, second, what we cognise interests us profoundly, stirring into vigorous and sometimes chaotic action, our conative tendencies. What we experience when we experience emotion is just this powerfully toned mental activity, primarily conditioned always by cognition, and accompanied and modified, and to a smaller or greater extent conditioned, by organic factors. Emotions like fear, anger, sex, rivalry, as well as the more retributive emotions, depend normally on the cognition of specific objects, upon the recognition of situations. I do not of course mean that an explicit judgment is *first* made, and an emotion *then* follows. But emotion involves cognition, or recognition, involves some kind of judgment, using judgment in a very broad sense. If this is really true and is taken seriously, it means that we have 'moral' emotions because we recognise 'moral' objects and situations. I do not suggest that these moral objects and situations are merely dispassionately recognised,

as we recognise a scientific proposition. As recognition of danger or of a rival is recognition of something which has *interest* for us, which wakens into action our conative tendencies, so moral objects—justice, honesty, goodness, rightness, in being apprehended as such, may also at the same time stir our conations—and they always tend to do so. The stirring (*inter alia*) we feel as 'emotion'. But we are not, except under special conditions, stirred, we feel no emotion, if we do not first cognise objective characters.

Of course emotions, always conditioned by cognition, may themselves condition subsequent false cognitions (in the sense in which 'cognition' can be called true or false). If I am jealous I may impute qualities to my rival which he does not really possess. And this might be the case with all ethical judgments. It is certainly our business to look with critical eyes at the mature judgments of moral consciousness, and ask, Is it the case that our moral judgments are in the end just objectified prejudices, objectified emotions? Is it just my objectified prejudice that I ought to do my best, that I ought on the whole to tell the truth? When I judge *x* to be evil and *y* to be good, is my claim to make true statements utterly without meaning (apart from my personal sincerity in making the judgments (p. 142))? It seems to me perfectly plain that whether these particular judgments are true or not, they do claim to be true, that they are true or false, and that the only question of importance is that of their truth, whether there is evidence for them, or whether they are self-evident. Psychology and the history of man has no more to do with this than the hopes of a man of science that he may establish a certain law have to do with the truth of the law. In both spheres we have to guard carefully against the attempt to fit truth to inclination, and that is all.

In fact we *judge*. And if anything is 'disinterested', it is our judgments and not our emotions. A disinterested judgment may be accompanied by emotion, but apart from this the phrase 'disinterested emotion' (p. 108 *sq.* and *passim*) appears to me totally devoid of meaning.

If then emotions play a secondary part in moral judging, Prof. Westermarck's long account of the causes of belief in objectivity, though interesting and important for him, will not be really important for ethics proper except in so far as it enables us to guard against prejudice arising from emotions. The real question will be, What, if any, moral truths can be vindicated, and how can they be vindicated?

In the first chapter Prof. Westermarck raises the most interesting question of self-evidence, into which it is unfortunately impossible here to enter as it deserves. The following suggestions may, very tentatively, be thrown out. Whether there are any self-evident truths at all in logic or in ethics seems at least open to doubt. It is of course the case that we come to apprehend certain propositions by themselves and come to believe them true without referring to

other truths. They certainly appear to be true, and some of them may perhaps appear to every expert to be true (*e.g.*, the law of contradiction). But though they are in this sense self-evident, they are not self-contained, but are grounded in a certain nature of things. They entail important implicit assumptions of truths outside themselves. The principle of contradiction, *e.g.*, seems to imply a reference to time, which may turn out to be more important than is commonly recognised. And what seems true of logic seems also true of ethics. If there are any 'self-evident' moral principles in the sense described, if there are certain truths which stand out and which appear to be true by themselves to every expert, without exception, it will not follow that these involve no inherent assumption of truths (*e.g.*, propositions arising from religious experience) outside themselves, and if so it is quite possible that subsequent differences of opinion about certain propositions other than these alleged self-evident ones, would destroy the unanimity about the truth of the 'self-evident' propositions. (So it is possible that an unorthodox view of the nature and place (if any) of time in the universe might affect our acceptance of the law of contradiction.) But whatever be the meaning of self-evidence, what (if the emotional theory is set aside) we must do, and all we can do, is to look as fairly and squarely as possible at each proposition which claims to be self-evidently true. And it has to be kept in mind that just as agreement, even among experts, is no proof, so neither is disagreement disproof. There is indeed in the nature of things no final 'proof' possible at all—except the 'proof' of the expert, and the 'proof' of the general philosophical tests as to how our alleged self-evident truths fit all the facts of life. (Many of course would deny that this latter test is applicable at all.) If after careful testing we really disagree, we must just disagree.

Making these reservations, then, *Are* there any self-evident moral truths? With Prof. Westermarck's criticisms of Sidgwick's axioms as being either not true or else tautological I am in general agreement. But Prof. Westermarck does not consider, beyond mentioning it (pp. 121 *sq.*), one principle put forward by Sidgwick, Bradley, McKenzie, Laird and others, the principle that everyone ought always to do the very best he is able to do, that everyone ought to act always honestly up to his lights. It seems to me that here is a general principle, perhaps it might be called a formal principle, which is not tautological, to which most, if not all, moralists would be compelled to agree, and that it is a principle which if carried out would transform the face of the world. Prof. Westermarck evidently does not (p. 181) believe this to be self-evident, but it would be interesting to know what he has to say about it. It is true that the principle, being formal, does not reduce the great differences of interpretation as to what *is* the best thing to do, even under similar circumstances. But to establish the objectivity of a formal principle is important. And the variety of opinion regarding *material* rules in itself is no

proof of lack of its objectivity. It may further be questioned whether Prof. Westermarck does not greatly exaggerate the differences among enlightened people regarding moral rules. There appears to be much more tendency for reasonable opinion to converge than he acknowledges, and this suggests, though it does not prove, that there may be more objective validity even about particular rules than he admits (pp. 3, 42).

Is ethical relativity a morally dangerous doctrine? Prof. Westermarck says (p. 58) in a paragraph out of which I can get very little meaning, that his own theory cannot be depreciated by the same inference as was drawn from the teaching of the ancient Sophists, and that ethical subjectivism makes us more tolerant and at the same time more wisely critical of other moral opinion than our own. But Sophistic relativity is a dangerous doctrine (though that does not in itself prove it false), and what is the difference between Prof. Westermarck's own doctrine and that of the Sophists? I think there is a difference, but if there is a difference it lies in the fact that whilst the Sophists were consistent, Prof. Westermarck is not. Radical ethical relativity, radical subjectivism, means that moral judgments have no truth (or falsity): they are merely objectifications of subjective feeling, emotion or what not, and if A does feel and 'think' *x*, I cannot see that your consistent relativist could deny that this is just as good as B feeling and 'thinking' *y*. If Prof. Westermarck rightly replies that moral opinion is not as individually capricious as all this, that it is grounded in instinct and tradition, we can go further and refer to his own accounts (*e.g.*, 63 *sq.* or 184 *sq.*) of the biological (and perhaps other) *utility* of instincts and traditions, and ask whether this account does not assume a certain kind of standard, and whether in the end Prof. Westermarck is not a very bad relativist, and rather a good utilitarian? I should myself agree with T. H. Green (*Prolegomena*, § 194) that hedonistic utilitarianism is not a *moral* theory, but it does at least imply an objective standard, and I cannot but think that Prof. Westermarck's continual citation of the utility of emotions and customs and beliefs proves him to be a utilitarian at heart.

Or, to adopt another line of attack, we may point Prof. Westermarck's own loaded pistol at his own head. If all other ethical theories have their emotional basis, why not this one? If other moralists objectify their emotions and so run into error, or at least fail to run into truth, why not Prof. Westermarck? One might hazard the guess that Prof. Westermarck's great conative and emotional bias towards anthropology and sociology has led him into the mistake of overstressing the importance of the variety of moral opinion. One might guess that his resentment against those who, being less interested in these subjects, do them less than justice, leads him to be vindictive, resentful and even 'retributive'. This fact has the effect of blinding him to the value of rationalist ethics, of causing him to take perhaps a malicious pleasure in trying to hurt the feelings of those who hold rationalistic views. One

senses sometimes a certain annoyance and even bitterness. This, I need hardly say, is not a personal attack upon Prof. Westermarck, nor could anyone deny that his methods of controversy are scrupulously fair. And personally I find that his vigour sets my circulation moving (if a reviewer is permitted to have a circulation). I merely suggest that it would be an interesting exercise for some student of psychology to write an essay on the emotional basis of Prof. Westermarck's theory. And if it is emotionally based, like all the rest, how can it ever claim truth?

I have noticed only one small mistake: page 199, l. 8, 'deny' should be 'assert'.

LOUIS ARNAUD REID.

The Theory of Knowledge and Existence. By W. T. STACE. Oxford: Clarendon Press, 1932. Pp. xii, 455. 18s.

It is very refreshing to find a writer on epistemology who knows his own mind, is willing to write lucidly, simply and directly, and withal has the courage to admit that whether or not transcendentalism can solve its own problems (and as to this Dr. Stace here reserves judgment) there is room for an empirical-treatment of epistemology which tries to answer the plain questions about knowledge which the plain man has been asking ever since the rise of evolutionism. In his Preface Dr. Stace claims Poincaré and Vaihinger as his masters, and assures us that his remarks on mathematics and relativity have been 'vetted' by Dr. C. D. Broad. But the most characteristic feature of his treatment is that he recognises the difference which evolutionism makes to epistemology, and bears it steadily in mind when he develops his own views. "The great scientific fact of the nineteenth century", he says, "was the establishment of the theory of biological evolution." It follows that "knowledge, like all other human things, has grown up in the struggle for existence. And this reflection has led to the belief that the structure of knowledge and its inner nature . . . has been determined by biological needs. . . . It has come to be thought that . . . knowledge is the handmaid of practical activity. This was a new thought in philosophy . . . not to be found in the classical systems of pre-evolutionist days" (p. 1). It is, moreover, "likely to be abiding in its influence. The theory of knowledge can never return to its pre-evolutionist attitude" (p. 2). So "the thought that action, at least in some measure, governs knowledge will spread, and become incorporated in the philosophies of the future" (*ibid.*).

It will probably be apparent from these citations that Dr. Stace has the root of the matter in him. If the 'science' (?) of epistemology is to have any relation or relevance to the actual operations

of the human intelligence, it seems clear that it must concern itself with the conditions under which that intelligence historically grew up and continues to function (if not to flourish). And it is equally clear that his conception of epistemology compels Dr. Stace to keep in close touch with the other views which have found the same inspiration in the historical evolution of the human spirit. Accordingly, we find Dr. Stace developing his doctrines with a constant reference to those of pragmatism. Not that he is a pragmatist himself. His references are frequently polemical; but he fully recognises the originality and importance of the pragmatic theory of knowledge, and understands it a great deal better than any of its previous critics. His criticisms generally have something in them.

In consequence he has produced what all pragmatist teachers have so long felt to be a great desideratum, *viz.*, an intelligent criticism of pragmatism based upon adequate study of the pragmatic doctrine, and upon sufficient understanding of pragmatic aims, to be worth putting into the hands of their students, in order to help to develop in them a critical insight into the points really at issue.

Accordingly I welcome Dr. Stace's undertaking, and shall devote this review primarily to the points in which, despite their common starting-point, he departs from pragmatism. These points are so many and interesting that I can pass lightly over his repetitions of some familiar calumnies. Among these one must, of course, mention first, *pudoris causa*, the inveterate allegation that pragmatism defines truth as "any belief that works" (p. 2). I have despaired of doing any good by arguing against this crude attribution; but as Dr. Stace repeatedly does me the honour of referring to my *Logic for Use*, and has, I suppose, read it (more or less), I think he might at least have attempted to refute my arguments. But presumably the attribution of an identification of truth and use to pragmatism has become a *habit* in philosophic controversy, like the misquotation of Occam's Razor (to which Dr. Stace also succumbs on p. 433), and one should not press this point. Dr. Stace uses it to confront "the extreme pragmatic view" with the question (p. 4) "If knowledge has no purpose except action, what then is the purpose of action?" He himself answers the question in terms of an 'absolute' value of Truth, Goodness, and Beauty, and proceeds to make it a reproach to pragmatism that for it the value of knowledge will be "no more than survival-value".

Now this criticism involves, I think, some misapprehension. It is true that the pragmatic epistemology does not explicitly propound any grand and sweeping (but vague and abstract!) answer to questions about ultimate values: it would prefer instead a little critical inquiry into the concrete meaning of vague 'ideals' like Truth, Beauty, and Goodness, and into the exact nature of the 'obligation' to pursue (or at any rate to talk about) them. But it can plead a good reason for this attitude. For it recognises

that in ultimate analysis no real questions are merely abstract. It holds that every genuine question is generated by the consciousness of a problem, and every problem arises in the context of a concrete situation, in which some thinker finds himself involved. His problem, therefore, is always concrete, and personal, and relative to his circumstances; and so also will his answer be, in fact, if not in form. Hence the only *general* answer that can be given to the question, *what is the end of action?* will be 'whatever the agent is aiming at',¹ and this obviously leaves open the question whether the various agents can agree sufficiently to aim at a common end or good (in any definite and concrete manner). At present men (not only philosophers) are notoriously still very far from such agreement. What has misled Dr. Stace into thinking that this practical discord among men can be turned into a theoretic objection to pragmatism, is, I fear, that he has not sufficiently appreciated the implications of Dewey's and Sidgwick's doctrine that knowing is essentially a problem-solving occupation.

Dr. Stace's other point, about the relations of truth and survival-value, is undoubtedly intriguing and important. But it has not been overlooked by me (*cf.*, *Problems of Belief*, ch. xii), and the problem exists also, not only for Dr. Stace, but for all theories of knowledge whatsoever. Even a wholly metempirical and *a priori* theory of knowledge, when it is held in good faith, will have to face it, and to explain how it can hope to maintain itself in a world dominated by the struggle for existence, if it cannot claim or acquire any survival-value, and what will happen to its 'truth' if it proves deadly to those who hold it!

I will next enumerate the points of first-class importance which Dr. Stace's epistemology appears to have correctly apprehended. (1) The recognition of evolution and of the biological basis of the human mind has already been mentioned, and is, of course, a *sine qua non* of any scientific theory of knowledge. (2) I would put next the recognition of teleology and the purposiveness of the mind's functioning. This is a very important and obvious feature of mental operation, and its omission from the traditional logic is all the more astounding that Aristotle, the founder of that logic, was himself a champion of teleology in biology and metaphysics. (3) Hardly less important and revolutionary in effect is Dr. Stace's recognition (especially p. 59) of the *selectiveness* of thought, and the essential need for *relevance*, which have received even worse treatment from the traditional logic than purpose. For they were not only omitted but often represented as the sources of *error*, while, with an amazing blindness to the sceptical consequences, a manifestly impossible goal, a single all-inclusive truth, was put forward

¹ Alternatively it would, of course, be possible to answer 'life': but this would be as open to objection as 'Truth' or 'Goodness'. Such generalities are always too vague. What we really wish to know is what sort of 'life' or 'truth' in the concrete is worth while.

dogmatically as the ideal of thought and the condition of proof. Yet all the time the existence on the one hand of the special sciences, all practising selection and invariably concentrating on parts and aspects rather than wholes to attain truth, and on the other of philosophic syntheses, all ignoring as irrelevant the details of the sciences, was staring logicians in the face! Yet they never noticed that without relevance no reasoning whatever reaches any conclusion, and that relevance is determined by purpose. (4) Dr. Stace's description of the sense-world as "still a continuous undivided sense-manifold not yet carved up into discrete things" (p. 241) shows that he has thoroughly emancipated himself from the fatal fiction of common sense, which Hume passed on to Kant and Kant allowed to determine his whole epistemology, *viz.*, the atomic dissociation of the 'manifold of sense'. (5) He makes great play with the notion of *alternative truths*, between which the mind is entitled to choose whichever is most convenient. "A free choice", he says (p. 105), "between two equally unprovable assumptions frequently presents itself to the mind." Both of these he regards as equally 'true', though the simpler and more convenient may always be preferred, and though the pragmatist would hold that it *alone* was true (p. 114). Here, however, Dr. Stace would seem rather to underrate the pragmatist's resourcefulness. He is not so much concerned with decorating a preferred alternative with the epithet 'true' as with establishing the need for a choice, and the consequent impossibility of a purely intellectualist analysis. 'True' and 'false' he treats frankly as terms of valuation, descriptive merely of better or worse formulations, and essentially relative to changing emergencies, purposes and phases within an inquiry. While cordially agreeing with Dr. Stace about the possible plurality of 'truths' (*i.e.*, *truth-claims*) about a subject and the methodological advantage of tolerating it, he would think that no harm could come of restricting the term 'true' to such outstanding truth-claims as excelled their rivals in value and were *best*—relatively always, of course, to any one time, purpose, and problem.

It would, however, be misleading to represent Dr. Stace as a complete pragmatist. He has no doubt the merit of having mastered the ABC of pragmatic epistemology, but for this very reason he may be summoned to proceed to the Z. But to do so he will have to surmount a formidable series of hurdles.

(1) His attempt to build on the conception of the *given* is questionable. It is true, no doubt, that the given each knower starts from is *his* given (p. 31), and that the logical given is not to be forthwith converted into metaphysics (p. 33): but it should be noted further that it is always given in the light of his whole biological past and social environment. Now this means that actually our knowing starts from the *common-sense* analysis of the given and with the 'categories' embodied in language, and that the *philosophic* analyses which seek to recover and reconstruct the

original data are all *ex post facto* inferences which may misrepresent the actual psychic development, and are in danger of degenerating into logical fictions. Next it should be observed that for any *active* mind (and Dr. Stace recognises mental activity in the handsomest manner) the *given* is always largely *taken*: it results from the direction of attention, the play of interest, the choice of values, and the adoption of aims. In view of these hardly disputable considerations Dr. Stace's assertion (p. 46) that "the *given* is independent of will" seems too strong. This will entail qualification also in the inference that "knowledge is everywhere tied to the *given*" which is a 'first principle' of Dr. Stace's theory (p. 47). It will not support the charge that "the pragmatic view fails to explain what is called 'fact'" (*ibid.*).

Indeed, (2) the pragmatic view of 'fact' lends itself to effective criticism of Dr. Stace's. It may be pointed out that *no* one has a right to *beg* the conception of fact. In view of the literally unending labours of the sciences to determine what the 'real facts' are and to discriminate them from alleged 'facts' which turn out to be illusory, and the reconstructions which all scientific facts are continuously undergoing, it must be admitted that the work of science consists essentially in eliciting fact from 'facts,' and in constructing a path on which scientific progress can be made. It is quite impossible, therefore, to *start* from absolute fact, or to attain it, if the procedure of science has any value. It is also plain that any 'fact' which has won its way to actual recognition *must* be *relative*, to the evidence which established it, to the premisses from which it was inferred, to the context in which it occurs, to the purpose with which it is entertained. It should be obvious also that all these factors in its factuality are liable to change, and to destroy its status. Hence one cannot unreservedly accept Dr. Stace's dictum (p. 435) that "all truth, *whether factual or constructive*,¹ is compelled both by facts and by logic".

(3) Whether truth is more securely attached to formal logic at the other end may also be doubted. Dr. Stace has evidently made no special study of logic as distinguished from epistemology, and this sometimes shows regrettably in his logical phraseology. It has a decidedly antiquated air. He continues to speak of 'validity' (instead of value), as if it were attainable or important, and uses 'inference' in the sense of 'valid inference,' as if there were no other. He conducts his discussions in terms of 'concepts,' which are probably fictions and are certainly ambiguous. He mixes up 'judgments' and 'propositions' quite in the traditional manner (pp. 417-424). Nor would he, I think, have so much respect for the 'law' of contradiction, if he had had occasion to scrutinise its claims (p. 361 f.) as closely as he does those of 'identity' in his excellent remarks on pages 304-311. As it is, he merely recognises

¹ *Italics mine.*

that it has to be stretched to accommodate 'alternative truths' (pp. 287, 429). Lastly, a logician should surely avoid the metaphor of political coercion and refrain from speaking of "a breach of the laws of logic" (p. 120).

(4) I was pleased to find that Dr. Stace has adopted the useful notion of 'methodological assumptions'. But, as he does not use it in the same sense as I do, his criticism of me (p. 353) seems to miss the mark. To Dr. Stace a methodological assumption means (pp. 405-406) "a proposition, not known to be true, and the truth or falsehood of which is, for the limited purposes for which the assumption is used in knowledge, a matter of indifference; but from which it is known that true propositions can be deduced within a limited area of knowledge". He states also that though it must not be known to be true, it may be known to be false (p. 406).

Now there are here several points which appear objectionable. To me an assumption is methodological if it promises to be helpful in the investigation of a subject. Provided it is, the question of its truth or falsity becomes irrelevant and should not be raised. Of course, if the assumption were *known* to be true, there would be no sense in calling it methodological. On the other hand, if it were discovered to be false, it might still be used on problems where its falsity made no difference: only it should then be called a methodological *fiction*. A capital example (which incidentally reveals the error in Dr. Stace's dictum (p. 354) that "methodological assumptions are always assumptions regarding which we have a *choice*. We can choose one method or another") is Determinism. For it must be used for the purposes of prediction, whatever we believe about its metaphysical truth, simply as being the *only* method of prediction. Thus a methodological assumption is not as such concerned with facts at all: it is only a way of manipulating and investigating facts. So I really do not see why Dr. Stace should call it "a fatal mistake" (p. 353) to regard the uniformity of nature as a methodological assumption. For unless we assumed it there would be an end of induction—or rather no beginning thereof! When we wish, therefore, to argue from and about 'facts,' we assume that nature is uniform in one or more of the senses discussed in my *Formal Logic*, ch. xx. We have no choice about this. For though we may more than suspect that there are limits to nature's uniformity, if we refused to make the assumption, we should simply be paralysed, and should have to wait and see what happened.

(5) I will conclude with a protest against what is perhaps only an *obiter dictum* on page 377. That "evolution presents no specially interesting features to the epistemologist" seems to be neither true in itself nor compatible with the basis of Dr. Stace's doctrine and his argument in ch. i. Actually evolution raises extremely intricate and interesting questions about teleology and progress, affects profoundly the mind's whole structure, and suggests very forcibly, even to the strictest formal logic, that such philosophic industries

as the interminable discussions about 'universals,' classification, and the 'deduction of categories' are essentially illusory and vain; for the reason that species (and genera, etc.) are only conveniences of classification and results of accumulating individual differences, and that the list of the 'categories' can never be declared closed.

For the sake of completeness Dr. Stace should have dealt also with the place of probabilities and risks in reasoning, and with the bearing of Alfred Sidgwick's discovery of the liability of the middle term to ambiguity on the claims of valid inference. But these points perhaps all belong to the study of logic, which is needed to support Dr. Stace's epistemology. A fuller account of the status of fictions would also be welcome, together with a more usable criterion for distinguishing them from 'valid constructions' than the account on pages 429-435, which does not allow sufficiently for the need of correcting accepted errors.

A few remarks on the discussion (pp. 437-439) of the topics I have called the revaluation and antedating of truth may fitly conclude this notice. In it Dr. Stace vigorously protests that he believes in absolute truth, and disallows the pragmatist custom of calling the successive phases in a process of discovery 'true' for so long as they continue to be the *best* views obtainable. The ground for this veto is, of course, the divergence about the definition of 'truth,' and this, up to a point, is a *verbal* question. But Dr. Stace should realise that his usage leaves him in an awkward position. He can never tell *which* of the current beliefs are true or false, and can only call them false *after* the sciences have dropped them. So 'truth' is never more than wisdom after the event. These implications he does not seem to resent. "No doubt," he says (p. 439), "this means that we can never be certain, in regard to complicated scientific theories, that we have reached any measure of truth. We can never be certain until we know *all* the facts, *i.e.*, until we are omniscient. But I see no objection to admitting this. It does not render science hopeless or vain. For although we can never attain certainty, there is a growing probability that our theories are true." Dr. Stace should remember that the appeal to omniscience is a short cut to scepticism. And is it not to render science vain, to refuse to recognise its normal procedure and the essential progressiveness of knowledge? These cannot be represented as approximations to any 'absolute' truth. For until we have grasped the latter we have no means of determining whether we have been approaching it, or only wandering blindly on false scents, or even plunging deeper and deeper into the mire of error. If we can use no other test of the value of our knowledge than the degree of its approximation to an unattained and unattainable omniscience, it may be, for all we can tell, departing further and further from the truth, as 'civilised' societies are deteriorated more and more by their suicidal neglect of eugenics.

F. C. S. SCHILLER.

VI.—NEW BOOKS.

Fundamentals of Ethics: An Introduction to Moral Philosophy. By WILBUR MARSHALL URBAN, Stone Professor of Philosophy in Dartmouth College. London: George Allen & Unwin, Ltd., 1931. 12s. 6d. net.

PROF. URBAN'S earlier publications, and perhaps especially his work on the nature of 'Value', will ensure a welcome for this volume on Moral Philosophy. It is of the nature of a text-book; and the arrangement, scope and contents have been chosen as the result of many years' experience of teaching in American colleges. The book has, as we are told in the Preface, a twofold purpose: to guide reflection on the ethical aspect of important social problems; and to serve as an introduction to those metaphysical questions which arise for the moral theorist. It is, accordingly, divided into three parts, Moral Theory, Moral Practice, and Moral Philosophy; and the view guiding the arguments and conclusions throughout is that human values are fundamental, laws and institutions being regarded as subserving or embodying those values.

Part I. : Moral Theory.—Though, historically, the formulation of moral theories is subsequent to the apprehension of moral facts (moral facts being *judgements* on conduct, not conduct itself), the author believes that an account of the various theories of morality, rather than an attempt to analyse and describe the moral facts, forms the best introduction to the subject.

Beginning with the question, What is Ethics, and why should it be studied? Prof. Urban answers that the study of ethics derives its value from the fact that it tells us how to act rightly; it tells us what actions are right and what wrong; what good and what bad. That the untutored 'healthy human understanding' does not adequately perform this task is evident from the moral difficulties and confusions often confronting us. The function of ethics is to clear away these confusions by first making explicit the norms or standards implicit in our moral judgements, and then, by reflection on and criticism of those norms, attempting to formulate a standard with universal applicability. Ethics is thus, in the familiar terminology, a 'normative science' or 'science of norms'.

At any given period, Prof. Urban continues, there is general agreement among men that certain classes of actions are right and others wrong—though opinions may widely differ as to whether a particular action falls into a particular class; and these agreed or conventional standards are the norms, built up by the experience of the race, which form the raw material or factual basis of ethical theory. To explain these facts two widely different types of ethical theory have been formulated: the Formalistic, which regards the ultimate standard as law; and the Teleological, which conceives the standard in terms of end or value. But

within the Teleological theory itself we find that the end may be conceived as either Pleasure or Self-realisation; and, finally, Self-Realisation theories may be classified as either Naturalistic (giving rise to the Ethics of Evolution), or Spiritual (giving rise to the theory associated with the Idealists of the late nineteenth and early twentieth centuries). After some discussion of these various doctrines, Prof. Urban decides in favour of the 'Idealist' theory, and the remainder of Part I. concerns itself with the exposition and defence of this doctrine.

Part II. : Moral Practice.—The goal of practical morals, we are told, is to put the various values of life in their right order; and, for the Self-realisationist, this order is determined by the degree to which the various values contribute to complete self-realisation. The order generally accepted is (1) Bodily, (2) Social, (3) Spiritual (including æsthetic, intellectual and religious) Values (p. 161); and there are three principles operative in the determination of this order: (a) That intrinsic values are higher than instrumental; (b) That the permanent is higher than the transient; (c) That the productive is higher than the unproductive.

Passing from these general considerations, and, in the light of them, discussing more concrete questions, Prof. Urban deals with the relation of ethics to politics, and holds that the foundation of all economic and political organisation must be, in the last resort, ethical. Custom and explicit social law, e.g., are concerned to secure at least the *minimum* of morality necessary to the existence of society. This point leads naturally to the analysis of the nature of rights and duties—notions common to ethics and jurisprudence—and the author's treatment of these matters is fresh and extraordinarily illuminating. 'Rights', he holds, are logically prior to 'Duties'. This does not imply the theory of Natural Rights. Indeed, that theory is based on a wrong conception of Right. Rights are "the legitimate expectations growing out of the functional relations of the individual to the social whole" (pp. 194-195). Rights are *functional*, not *substantive* or *inherent*. They do, of course, belong to individuals; but they are privileges accruing to individuals as members of society, not qualities inherent in them as human beings. Prof. Urban's criticism of the theory of natural rights and his conception of rights as social products are not new; but his handling is, I think, original. Discussed in relation to present-day practical problems such as the claims of labour and the institutions of family life, the theory, in the hands of one who is, like Prof. Urban, highly sensitive to the claims of common humanity, not only throws light upon practical perplexities, but also itself gains enormously in weight of conviction.

Part III. : Moral Philosophy, deals with the metaphysical issues raised by ethical theory. The postulates of morality are considered in relation to the postulates of science; and there is an interesting chapter on the Problem of Moral Knowledge. Both the Intuitionist theory and the Empirical theory of conscience are rejected on account of their extreme one-sidedness. As against Intuitionism it is contended that conscience has, from one point of view, an historical development; and, as against Empiricism, it is held that there is yet an *a priori* element in morality—a view which Prof. Urban regards as supported by the present-day tendency to restore the *a priori* factor in the conception of knowledge in general. The notions of 'good' and 'bad' are undefinable in terms of anything else. They are 'logically primitive concepts'. The sense of duty is unique and unanalysable. The principle that 'The greater value ought to be chosen over the less' is an immediately self-evident moral law.

The last three chapters are concerned with the freedom of the will, the concept of moral progress, and the relation of morality to religion.

From this summary statement it will be obvious that Prof. Urban's introduction to moral philosophy is a comprehensive one. Part I. covers familiar ground, reproducing the strong and (I believe) the weak points of Idealism. Perhaps it is because one is traversing familiar ground that one feels there is lacking that hard, concentrated thinking characteristic of the earlier Idealists such as Green. And with regard to Part III., while there is much that is profound, an impression is occasionally left that far-reaching conclusions are rested upon arguments which will scarcely bear their weight.

But these criticisms are perhaps misdirected. Prof. Urban is not, after all, writing to convert hardened heretics, but rather to direct younger minds to what he conceives to be the most fruitful lines of advance in moral philosophy; and that aim necessarily determines the extent to which the author can be expected to discuss what appear to him ultimately untenable theories. Limitations imposed by the purpose of the text are, as far as possible, rectified by a catholic selection of books for further reading at the end of each chapter.

Reference may be made to three points of detail. (1) I feel some doubt as to Prof. Urban's conception of the nature and function of ethics. Does he distinguish between a 'normative science' and a 'science of norms'? Ethics, conceived as a science of norms, would not necessarily be concerned to tell us how to act rightly; whereas, conceived as a normative science, I suppose it would. Prof. Urban does take it to be the business of ethics "to tell us how to act rightly" (p. 3); but there is, I should have thought, a real difference between a moral code or system of precepts and a moral theory. The author indeed appears to agree with this view when he says (p. 35) that "it is not the business of ethics to make a new morality, but rather to understand and interpret the morality we have". Because of these two apparently different conceptions of the function of ethics, the argument of Chapter I. did not seem to me quite clear. But the two statements are quite compatible if Prof. Urban is contending that ethics, like other sciences, has a 'pure' and an 'applied' part, to neither of which the title of 'science' can be refused.

(2) Prof. Urban asserts that the obligation to choose the good is axiomatic, and that the proposition "the greater value ought to be chosen over the less" is an immediately self-evident moral law. Many moralists would flatly deny both these assertions. They would certainly agree that, once I understand what 'good' means, it becomes evident that I always *do* aim at it, and that I always *do* aim at a greater over a lesser value; but the very meaning of good implies that to speak of any *obligation* in this respect is irrelevant and insignificant. Axioms and self-evident moral laws, like the philosopher's stone, have been sought in all ages; and several moralists have recently mined the earth or swept the heavens prosecuting that quest. Is not the search a vain one, and is it not inspired by an epistemology based on a misinterpretation of the place of axioms in mathematical thinking? That at any rate was the earlier view in the tradition which Prof. Urban represents. But this is an iconoclastic age, and it seems we can no longer cling to the faith that Oxford is Oxford and Cambridge is Cambridge, and never the twain shall meet.

(3) When considering the validity of the Naturalistic theory of conscience, Prof. Urban, unless I misunderstand him, holds that it explains primitive but not civilised morality, for "the two are quite different". With regard

to the tribesman's conscience "it is quite proper to say that on this level there is no individual moral self" (p. 373). It would be interesting to know whether the author was simply granting, for the sake of argument, a distinction between primitive and civilised morality, and maintaining that, even so, the Ethics of Evolution cannot explain our moral consciousness; or whether this view of primitive man represents his considered conviction. Prof. Urban is not unaware of Prof. F. C. Sharp's analysis of certain typical phenomena of primitive society (*Ethics*, Chapter XI.), and his pretty convincing conclusion that "the human conscience may properly be regarded as in the last analysis everywhere the same"; or of a similar contention in Green's "Prolegomena" (e.g., pars. 190 and 201-205). The point is of such importance for general moral theory that one would have appreciated a slightly more explicit statement of Prof. Urban's own attitude.

But, these more or less critical remarks aside, one cannot but feel under a great obligation to Prof. Urban for his most interesting and valuable analysis of moral practice in Part II. A great moralist in every sense, he has not only given his students insight into historical and systematic ethics, but has also brought a well-thought-out moral theory to set in perspective serious and delicate social problems which not everyone could handle in so dispassionate and yet illuminating a fashion. They are very fortunate whose adventures in philosophy have been led by him.

W. D. LAMONT.

Opera hactenus inedita Rogeri Baconi. Fasc. XI. Questiones supra libros prime philosophię Aristotelis (Metaphysica I-IV). Questiones supra de Plantis nunc primum edidit Robert Steele collaborante Ferdinand Delorme, O.F.M. Accedit Metaphysica vetus Aristotelis e codd. vetustissimis nunc primum edidit Robert Steele. Oxonii e Typographeo Clarendoniano Londini apud Humphredum Milford. MCMXXXII. Pp. xxx, 334. 25s.

THE questions on *Met. A-I* now published for the first time appear to be the latest work of Bacon on any part of the *Metaphysics*, and it is interesting to note that when he wrote them he was aware that the whole contains thirteen books (of the existence of K he would seem not to have been informed). The editors do not explicitly say from what manuscript the questions are edited, but I infer from expressions in their *Introduction* that they are part of the contents of the Amiens MS. from which the materials of the last two fascicules have been derived. The silence of the editors presumably means that the same thing is true of the questions on the spurious *de Plantis*. I hasten to say that, so far as I can judge, the editing of these questions has been much better done than in some former volumes of the series. There is nowhere any stark unintelligibility, and if the text is read with the corrections placed at the end of the volume, Bacon's sense is in the main faithfully presented. On the whole I congratulate the editors on their dealing with what is evidently a very incorrectly written MS. This is not to say that I do not think further corrections sometimes necessary, and I propose to add a few conjecturally in the hope that they may be found helpful.

P. 3, 21, ut sciant id de quo *ineantur* seems quite unmeaning; the context requires something like de quo in ea (tract)atur. P. 14, 13, meliori

modo quo *eidem* potest? Quidem. P. 21, 25, the MS. ut quod *moveat* habeatur seems to me, by comparison with what follows, right against the editors' suggested *moveatur*. P. 32, 33, also, the MS. *et hoc modo* seems to me right against the proposed *est hoc modo*, which I can hardly translate. P. 67, 11, the MS. *et potentie materie resolubilis* is certainly unmeaning, but surely what is wanted for *potentie* is *in potentiam* (not *potentia* as proposed in the corrections). P. 75, 24, for in *rectitudinem* non potest predicari must we not read in *rectitudine*? P. 76, 24, *distinguiamus* 10 homines *etc.* Qy. 10 homines a C. P. 77, 31, *accidens vel passiones rerum*. Qy. *passio*. P. 101, 31, *res entis*, l. *res entes*. P. 107, 32 and elsewhere a familiar maxim is given in the untranslatable form *propter unumquodque est tale, et illud magis*. Must we not, in every case, insert a *quod* after the *propter*? P. 108, 5, the sense requires the deletion of *non*. P. 116, 1, *nec curet unde respondentem videatur vel non*. l. *utrum* for *unde* (a scribal error noted in another case by the editors). P. 139, 34, for *hoc* l. *hic* (adverb). P. 149, 4, leads me to retract a criticism passed on a former volume of the edition, with apologies to the editors. I know now what is meant—or think I know—by the recurring phrase *continuatio esse divini*. It means the impartation of a remoter and remoter analogue of the 'being' which, in its fullness, belongs only to God, to the descending chain of the creatures. Hence I was *probably* in error in taking the phrase in a former instalment to be a transcriptional slip for *continuatio essendi*. It is not likely that the words are corrupt in all the half-dozen places where they occur in these *questiones*, and I therefore desire the editors to accept my retraction of my former strictures on this particular expression. P. 159, 13, *mutationem* makes such feeble sense that I rather confidently suggest *imitationem*. P. 160, 1, for *solum vel* I think we should clearly read *vel solum*. I could add a few more proposals, but these, I think, are the chief ones I have to make. I trust it will be understood that they are not made in any spirit of detraction, but simply from the desire to help forward the work of extracting a correct text of the author from the reports of hasty, careless, or ignorant scribes.

I hope I shall not be thought unconscientious when I go on to state that I have not examined the text of the questions on the *de Plantis*. My acquaintance with even the version of that work from the Latin which figures in the Aristotelian *corpus* is slight and my knowledge of the problems raised by the text slighter, and it does not appear to me that any remarks of mine upon this part of the composite volume would be of the least value to any one.

The version of part of the *Metaphysics* is apparently the most ancient at present known, the actual manuscripts from which it is taken (one at Avranches, the other at Oxford) being either older than, or little later than, the end of the twelfth century. The translation aims at being a very close word-for-word rendering, and I should imagine its publication should be of some value to minute students of the Greek textual tradition. (How far the editors have done rightly, in cases where actual Greek words are introduced into the text, in relegating the nonsense into which they have been depraved by the scribes of the MSS. to the foot of the page, and printing the true forms in the text, I do not feel competent to judge.) Perhaps I may be allowed to offer a few suggestions for improvement to the editors on this part of their work also. P. 257, 5, it is not the second, but the *first quod* which requires to be omitted; *ib.* l. 18, the suggestion to correct *speculative* to *speculativi* is certainly wrong; the word represents the Greek αἱ θεωρητικαὶ correctly. P. 258, 8, the proposed correction of

servilitibus to *sensibus* is required to bring the version into line with the Greek αἰσθήσεαι. But can we be sure that the translator had not αἰσθητῶν before him? I think I should have preferred to leave the alteration dubious. The translator was, in any case, not perfect in his Greek. At 257, 30 he has a mysterious clause *cum virtus sit* due to misreading the αἰρετὴν οὖσαν of his original as ἀρετὴν οὖσαν, and immediately below he makes something like nonsense by rendering ἀρχικωτέραν *antiquiorem* (*Met.* 987a, 16). The γέρας of 982b, 30, he oddly renders *senium* (by a confusion with γῆρας), and these are only a few examples of the way in which he has distorted the meaning of his author. As the editors say, Bacon's apparently splenetic attacks on the translators of Aristotle become much more intelligible when we realise the sort of version from which he had to extract the Greek philosopher's meaning.

I am not sure whether the editing of this part of the volume has always been done with the requisite caution. Some MS. readings which have been rejected will, I think, be seen to be sound, since, though they give a wrong sense, they correspond to the text of the manuscript of the *Metaphysics* known as E, and presumably represent what the translator had before him. Thus at 259, 35 *si aliquid [non] minimorum non mensuratur* the *non*, though certainly wrong, corresponds to the οὐκ of E, and the editors should therefore at least have thought twice before bracketing it. On the other hand, at 263, 13 *amorem [et] desideriumne* in his *que sunt posuerit principium*, the *ne* is senseless, and since the Greek is ἔρωτα ἢ ἐπιθυμίαν, we clearly should omit *et* and read *desideriumne*. The singular error at 258, 1, *ob hoc*, where the sense demands *ab hoc*, is presumably a printer's oversight. 264, 10 raises a pretty problem. The Latin runs *Anaxagorasque enim mecho utiler intellectu*. The editors, mindful of the μηχανῇ of the Greek, not unnaturally propose to emend to *mechanico*. But since the Avranches MS. has a gloss, *id est adultero*, I take it the maker of the translation had before him a corrupt text in which μοιχῶ was written for μηχανῇ. In such cases, I take it, it is important not to emend back to conformity with what we know to be the genuine Greek text. If we do so, we destroy the evidence as to the condition of the Aristotelian text known to twelfth-century translators. An odd example of the difficulties the student of Bacon's time had to wrestle with is given by 265, 34, where a guess has been made at the meaning of Aristotle's word *συνειρομένην*, with the result that it is turned into the absolutely meaningless Latin *cumdictum* (*conglutinabant cumdictum omne ipsis esse negotium* = *προσεγγίχοντο τοῦ συνειρομένην πᾶσαν αὐτοῖς εἶναι τὴν πραγματείαν*). In a similar fashion the familiar statement about Socrates, *περὶ ὁρισμοῦ ἐπιστήσαντος πρώτον τὴν διάνοιαν* appears as *de diffinitionibus sciente primo intelligentiam*. One really wonders at the penetration with which a man like Bacon could somehow get at the main sense of the author under such disguises.

It would hardly be in place in *MIND* to go through such a version at length suggesting improvements on the text provided by the editors. Much more, in my opinion, needs to be done in the way of lesser improvements on their work before we can feel confident that we have the *vetus* as Bacon read it than is needed for the *questiones*, but I prefer to thank them for what they have done rather than to make ungracious complaints about what is left to do. I suspect, however, that this part of the work suffers throughout from neglect to take account of the variations of the Greek MSS., and to determine the precise affiliation of that from which the version was made, as also from a tendency to discount actual scribal

errors in these particular MSS., or what amounts to much the same thing, misreadings of the MSS. by the translator. The editors, I think, are a little too ready to correct unduly with a view to bringing the version into line with the Greek *textus receptus*. Still there are some puzzles which should hardly have been set to the reader. What is meant, *e.g.*, at 273, 30, by the word *hee* (Gk. οἱτοι)? At 274, 19 there is a typical puzzle for the editors. Messrs. Steele and Delorme print in their text the meaningless *unde dicunt* (Gk. οὐδὲν λεγουσιν), giving *nil* as an 'emendation' at the end of the volume. But did the translator, I wonder, find οὐδὲν in his original, and misread it as ὅθεν? If not, how is a 'corruption' of *nil* to *unde* to be explained? A second puzzle occurs on the same page just below, at l. 32, where *παρὰ τὸν ἀριθμὸν τοῦτον* is represented by *imparem numerum hunc*.¹ I could certainly wish the MSS. to be inspected again at this place, since it is so clear that what they ought to read is *prae*ter. The *hee* of 276, 13 must surely be a mistake for *hec* (Gk. ταῦτα, misread as ταῖτα). Also 278, 27, *strictum* is pretty obviously the scribe's accidental error for *solidum* (Gk. τὸ στερεόν) and *multum* at 29 a similar oversight for *latum* (τὸ πλατύ). Immediately below (33) the full stop after *generi* completely destroys the sense. Read *Huic quidem igitur generi et oppugn(ab)at Plato* (Gk. τούτῳ μὲν οὖν τῷ γένει καὶ διεμάχεται Πλάτων).

It would be possible to pursue the subject further to the point where the MS. of the translation breaks off at Γ1007a, 31, but I doubt if the readers of *MIND* would have patience with me. As I have already said, while grateful to the editors for this curious specimen of the sort of text Bacon had to work on, I feel that in some cases they have failed to exhibit all its peculiarities from a natural tendency to 'correct' it into agreement with the Greek 'vulgate'. But *humanum est errare*.

A. E. TAYLOR.

Philosophical Aspects of Modern Science. By C. E. M. JOAD. London: Allen & Unwin, 1932. Pp. 344. 10s. 6d.

MR. JOAD is almost the first to draw up the philosophical indictment of the speculations that the new physics has given rise to. He selects for examination Eddington, Jeans and Russell. The last, treated with equal length but with less concentration, is dismissed on the grounds that his subjectivism rests on a surreptitious basis of realism, that his mathematicism ignores qualities, and that his neutral monism leaves no room for mind in its indefeasible quality of awareness. The author's interest is obviously fixed on the former two, as representing the van of the current movement from science to philosophy. Both have declared that the new physics leads to an idealistic metaphysics, and thereby encounter Mr. Joad's repudiation of all idealism, based on the charge, which to most of us will seem paradoxical, that it imperils the objectivity of values.

Jeans' complete philosophical naïveté makes him an easy prey. Unlike Eddington's, his speculation springs from the results rather than from the methodic principles of physics. He notes that the physicist's world has become a mathematical world in ingredients as well as in organisation, and reaches the idealist conclusion by first alleging the absence of materiality

¹Can the translator have read *παρὰ τὸν* as *περιττόν*? In that case *imparem* should be kept.

A. E. T.

in mathematical objects, and then by identifying these with thoughts. Thoughts, of course, presuppose a thinker. Mr. Joad's exposure of the slenderness of this argument would, I am sure, have added to its usefulness if he had turned his criticism also upon the superficial notion of materiality that is making the jump to idealism too easy. Surely the disappearance of bulk and figure do not constitute the atom into a spirit. When matter is defined as it should be, by the kind of law it exemplifies, it is seen to be still as far from mind as it was in the dualism of Descartes. Matter is so much of experienced fact as obeys mathematical laws. The mind's relation to these laws is altogether different, the relation not of obedience but of excogitation and recognition. Two kinds of entity may be identified when the laws of their behaviour are the same, not when the laws one embodies are the laws the other thinks.

Eddington is more formidable. His final constructive statement is precipitate, as he himself admits, but there is an arduous preparation for it, and the preparation is eminently philosophical in its technique. He mounts to speculation not on the basis of the achieved content of the new physics but through an epistemological evaluation of its new methods and principles. The reduction of the objects of physics to pointer-readings is not for him, as it seems to be for Jeans, a mark of the finality of physics, but the very opposite. The readings are too abstract to be real and too much the free work of the mind to be true. It is here that Mr. Joad intervenes to uncover a serious ambiguity in Eddington's statement. The ambiguity may be expressed in various ways: one way is that pointer-readings are said sometimes to be the starting-point of scientific construction and sometimes the result; another way, that they are adduced now as all that the physicist *quâ* physicist knows and now as the cause of his knowledge; yet another way, that here they are affirmed to be the realities screened by sense and common sense while elsewhere they are stripped of any pretensions to reality at all. The relations among the *sensa*, pointer-readings, mathematical constructions from the latter, the scientist's mind, and the cosmic mind-stuff suggested as the ultimately real are left vague. As Mr. Joad rightly puts it, Eddington's weakness lies in his failure to deal with the epistemological problem of perception. It is by adding to this weakness obedience to the anthropomorphic impulse that Mr. Joad accounts for both Eddington's and Jeans's easy slide into idealism.

Mr. Joad now proceeds to a summary statement of his own theory of perception, which, as is well known, he has presented more fully elsewhere. The theory is realism in its extreme form: every object of a cognitive act is independent of the act (which, of course, to yield realism, requires also the reduction of mind to acts and of acts to awareness; but these disputable complications are not discussed). The other possible relations between act and object are stated, examined, and rejected on the ground that they present more serious difficulties than the above one does. The rejected theories are rejected chiefly because they can give no successful account of the relation between the objects of sense and those of common sense or of physics. But when Mr. Joad himself comes to this problem he can only offer a very slight account indeed: the sensory object "suggests," bears our awareness to, common-sense objects, and these in turn suggest to minds of a higher stage of mental development the objects of physics. Even as a merely descriptive psychological statement this would be slight, but the real defect of it is that it is only psychological, and therefore does not touch the question of validity. It is curious to be left with no relation except a psychological one among all the several kinds of object asserted

to be independent of all psychical mechanism. This result, and the vaporisation of mind into mere awareness that is largely responsible for this result, plainly invite criticism.

This deliberately indiscriminate realism, it transpires, has been adopted by Mr. Joad as the only means of ensuring the objectivity of values. Being objects of awareness they, too, are independent of it. Values constitute another realm, "suggested" by the rest. Here I find the exposition puzzling, for Mr. Joad repeatedly insists that the apprehension of values is possible only to a mind that stands supernormally high in the evolutionary scale, and that even now such apprehension is relatively rare. Value must here mean something like a Platonic Form, a value that is nothing but a value, not a something that is valuable; and admittedly the pure intuition of value is highly abstract and therefore hard to come by. But my difficulty lies not so much in conceiving value in the abstract as in conceiving it to be real in this abstractness. I can think it to be independent of mind, but not to be independent of anything. It appears to be essentially, not accidentally, adjectival. The doctrine that value is not a property of objects but is simply suggested by them, and yet is equally real or existent, only perplexes me, for such value has for me no value-content and therefore no content at all. Logically pressed, the theory involves the odd conclusion that neither subject nor object has value; the subject meets it only by contemplation, objects only by suggestion. This is the nemesis of taking objectivity in its most obvious and purely descriptive sense, as overagainstness to a subject, as ultimate. The reason of it all is Mr. Joad's supposition that any attenuation of the distinction of subject and object would engulf the latter in the former and reduce value along with object to something that appears in the objective field only because it has already been projected there by the apprehending spirit, the objection to which is that the moral and æsthetic life (of the religious life Mr. Joad is not so sure) requires us to postulate the independence on the part of value of the judgment that asserts value, and if we grant the independence here we must in consistency grant it of the object of every judgment whatever. Personally, I prefer to think that the concern for the reality of values is not for their reality *simpliciter*, but for their reality as integrated properties of other objects and of the subject itself; and that the epistemological analysis and interpretation of judgments of fact are best achieved directly, not indirectly as a deduction from the supposed requirements of judgments of value. I would prefer, too, a theory that would find for the term "reality" a meaning other than that of factual apprehendedness.

It is, of course, easier to criticise a book than to write one, and I cannot close without paying a genuinely respectful tribute to the writing of this one. It is acute without being trivial, and lucid almost to a fault, though its hundred felicities of expression are never decorative but always significant. The sections dealing with the theory of perception seem to me to be weak, because instead of solving the major problems of perception they virtually posit them as insoluble; but the rest of the book is altogether admirable. The early chapters form the best elementary introduction I know to the epistemological criticism of the recent quasi-scientific theories of the physical universe, and the last chapters, which sketch the author's somewhat Bergsonian metaphysics, rise under the pressure of unimpeachable and resolute sincerity to a *confessio fidei* of deeply moving beauty. The book should be put into the hands of every student to give him the tools of timely criticism, the stimulation of widening speculation, and an

example of how to write on abstract problems with the clarity and grace of natural speech.

T. E. JESSOP.

Philosophy of the Sciences ; or the Relations between the Departments of Knowledge. By F. R. TENNANT, D.D., B.Sc., Hon. D.D. (Oxon.). Cambridge University Press, 1932. Pp. x, 191. 6s.

IN these Turner Lectures Dr. Tennant sticks closely to his brief, viz., "the philosophy of the sciences and the relations or want of relations between the different departments of knowledge", and makes a resolute and instructive attempt to be both critical and comprehensive. In a sense his conclusion is an approach to theism on the general lines that natural theology "entered on modernity with eighteenth-century deism" (p. 161), and that such a theology, based on a more liberal interpretation of all the sciences than was possible in the eighteenth century, is, if not the inevitable, at least a very plausible culmination of a wide, and withal of a critical, world-view. This point, however, is asserted rather than discussed in the present volume where theology, in the fourth lecture, is almost an intruder, and in the final chapter is, in the main, treated negatively in order to dispel the illusion of *unique* data in religious experience, such as the "numinous", or Ritschlian misinterpretations of "consolations, upliftings, bracings of will, joy, peace, etc." (p. 179) (I like the "etc." both here and on pp. 182 and 183).

Regarding the major and non-theological part of the book, it is unnecessary to inform readers of MIND that Dr. Tennant's knowledge of the sciences is wide and carefully pondered; and I propose to take for granted that these are valuable Turner Lectures, sedulously planned and efficiently presented. I mention the point explicitly, however, lest any reader should misunderstand me when I maintain, as I mean to maintain, that, in my opinion, some of Dr. Tennant's ideas are very wrong indeed.

Let me begin with a minor point. Dr. Tennant says (p. 131) that "realism, idealism and positivism" are refuted, and "phenomenalism" established, by certain elementary considerations about colour-blindness, and the like, mentioned here and in the neighbourhood of p. 70. Such a statement may very well be true, and the view is shared by many competent philosophers. On the other hand, these theories (except, perhaps, positivism which, incidentally, Dr. Tennant does not discuss) attempted to meet the alleged "refutations"—for their authors had become acquainted with such objections with their first philosophical feeding-bottles—and so can hardly be refuted by the mere statement of what they themselves undertook to answer. Similarly, on the positive side, it is surely rather surprising that Dr. Tennant should accept so many of Dr. Ward's fundamental tenets without any examination of them. It may be true that Dr. Ward has been too much neglected in Cambridge—I have heard Ward himself regretting, very wistfully, that his most eminent pupils seemed to have "got" so very little from him—and I am far from suggesting that Dr. Tennant's book is either Ward-and-Meyerson, or Ward-and-dripping. (Indeed, for all I have said, or am going to say, the book may be an admirable sandwich where Ward is only the bread.) But Dr. Ward has been criticised; and some of Dr. Tennant's readers may be perturbed by the circumstance that Dr. Tennant seems to have paid no serious attention to very many of these criticisms.

I pass to more serious matters. Dr. Tennant after drawing a valuable tripartite distinction between the *ordo essendi*, the *ordo concipiendi*, and the *ordo cognoscendi* argues that the last of these (or, in principle, a psychological and historical method) is *alone* legitimate (e.g., p. 43). His ground seems to be (p. 24) that this is the only method which possesses a certain "kind" of excellence in that it excels the others in respect of "involving no concealed assumptions or foregone conclusions". So far as I can see, however, this claim is abandoned (e.g., on p. 44) in favour of the quite different claim that psychology alone can *elucidate* the presuppositions of "knowledge". I suggest that the important matter is not how any philosophy begins, but what it can vindicate; and that it is reprehensible dogmatism to say that there is only one genuinely philosophical method.

Again, Dr. Tennant is very much enamoured of his "presumptive" method. "I venture to think," he says (p. 76), "that the knowledge which I have set forth concerning the nature of our presumptive knowledge is as stably fixed as, say, the chemistry of water". I venture to think, on the contrary, and also to hope, that it is as unstable as that fluid. Dr. Tennant's view is, in short (p. 38), "that we possess presumptive knowledge, the ultimate presuppositions of which may in turn be found to be presumptive" or again (pp. 64 *sq.*) "probable belief the probability of which is in the last resort of an allogical kind". If the latter statement means that there is no logic in the position, I should agree with it. The probability of a probability of a probability . . . is a vicious infinite; and the apparent modesty of Dr. Tennant's theory is really incoherence.

Lastly (although this is to come to an arbitrary stop), I should like to suggest that Dr. Tennant's defence of the thesis that origin *does* affect validity contains nothing whatsoever of substance. Firstly, he says, (p. 50) that his opponents in this matter have ignored the distinction between "truth" and "truth-recognition" or, as I should prefer to say, between truth and evidence (including "self-evidence", if any); yet, instead of a reason, he simply asserts (p. 51) that we "generally" need to know something of the history of any *known* proposition "concerned with actual things and believed to be valid of things". Nevertheless, on p. 60 he asserts that "certainly the logical connection of ideas is independent of the mode of origination of the ideas" (adding that their knowable applicability may depend in part on genetic considerations). Is this "certainly" anything different from "truth-recognition" on Dr. Tennant's part? And if Dr. Tennant has good logical evidence for the relevance of his psychogenetic theory, would not the logical connection of *this* evidence be, and be recognised by him as, "independent of its mode of origination"?

Dr. Tennant further charges his opponents with being committed to the untenable views (a) that there must be radical discontinuity between the antecedents of a valid thought and a valid thought-product; and (b) that "immediacy" must normally be accepted at its face value. To (a) the short and sufficient reply is that there is no earthly reason why Dr. Tennant's opponents should not hold that evidence *may* grow, and be recognised to have done so. It is ludicrous to suppose that they are bound to treat all the antecedents of sound thinking as non-logical cause-factors like a good night's sleep. And (b), I should say, also requires no answer. No one need hold that all evidence is immediate evidence, although it seems reasonable to maintain that in many cases in which knowledge is immediate, the acquisition of such immediate insight may have been preceded by many tentative and reflective attempts which just missed the point.

JOHN LAIRD.

The Mind and its Body. By CHARLES FOX. London: Kegan Paul, 1931. Pp. xii + 316. 10s. 6d.

THIS is a somewhat rambling book. The main direction is indicated by the title. In the first four chapters Mr. Fox collects the evidence against the view ordinarily associated with physiological psychology. He dismisses localisation with ease, and passes on to the question: Is there necessarily something going on in the nervous system corresponding to everything that goes on in the mind? This he answers in the negative. Intellection and imagery involve relations which cannot be paralleled by physical relations, and the idea of association centres and speech centres is due to an unfortunate prejudice in favour of an unnecessary hypothesis. It is thought that psychology can only be respectable if it speaks the language of physics or physiology, and this is the position that Mr. Fox very properly attacks.

His main points are, of course, that no one has been able to point to the correlate of imagery in the brain, and that organisms can do the same sorts of thing—such as learning a habit—when different areas of the cortex are there for them to ‘do them with’.

Mr. Fox takes the line that the body is used by the mind, rather than *vice versa*; that structure is determined by what has to be done, and therefore that mind has priority over matter.

The arguments against psycho-physiological parallelism are, I believe, unanswerable. The weakness of the book lies in its giving us no really clear line of advance. Mental energy is quite different from physical energy; on that we may be agreed, but what we want to know is: how are we to conceive of mental energy? Professor Whitehead’s notion of an organism of which mental events are constituents is noted with approval, but that is too static to be the whole account of the story. We must get the organism on the move. That is the fundamental problem of psychology.

For Mr. Fox it is a body-mind carrying out “the spiritual purposes of the person. There are . . . four terms to the relation we are investigating: namely, the person, or ego, spiritual forces, the mind, the living body.” And we are told that “the mind is controlled by spiritual forces”.

There are, says Mr. Fox, two senses of the word ‘mind’: the ‘psychoplasm’, which is closely connected with the body, and the ego which uses the body-mind. This ego seems to be free if freedom “implies the possibility of making a decision on grounds which previously made no appeal to the self”. This is, surely, a strange idea of freedom. If in the course of my studies I become curious about the problem of cellular division and decide to invite a boring biologist to tea in order to extract from him the required information, am I acting ‘freely’? In some sense I am making that decision on grounds which previously made no appeal to me.

Exactly where the spiritual forces come in is hard to say, unless, perhaps, they urge the ego in the direction of value which is apprehended by means of the intellect. This is not explicitly stated as the direction of these forces, but there is a discussion of value immediately following the postulate of spiritual forces and it is fair to suppose that they have something to do with one another.

To account for the humbler activities which fill our lives, we have the concept of ‘appetite’, but we are only allowed four appetites: hunger,

sex, herding and communication, and these are not enough to account for the behaviour which falls outside the high enterprises of value, which, after all, play a relatively small part in the lives of many of us. What of our desire for safety, and the satisfaction of curiosity? Are the spiritual forces responsible for my activities when I buy a revolver in order to defend myself against motor bandits? If the spiritual forces are responsible for all behaviour, then they are another name for that which has been called by other psychologists, 'libido' or 'hormic urge', and it is misleading not to have said so. If this is not true, then there is a great deal of behaviour which is not adequately accounted for.

The truth is that one gets the impression that the word 'spiritual' is being used as a challenge to scientific bigotry, rather than as the name of a concept which helps us to construct a hypothesis for the interpretation of human behaviour.

There are other obscurities besides the general difficulty of getting a clear idea of the author's constructive theory. Sensation is much talked of. On page 287 we are told that: "Sensations direct me to objects but are not themselves objects for me", but on page 293 we are faced by the dictum: "Known a sensation must be", and how it can be known without being an object is not easy to see. And again it is confusing to be told that "sensations are the means whereby the mind apprehends objects" when two pages before hallucinations are said to be sensations which we have when "no object happens to be present".

There is also a theory of images which calls for elucidation. We do not reproduce exactly the impressions which we have received; this is obvious, but Mr. Fox holds that when we have an image, "what we revive is our subjective states", and that when unscientific observers say they have vivid imagery, they are making some kind of mistake. We have already been told that subjective states "cannot be cognised but only felt" and yet in this experience we "are misinterpreting affective and conative experiences for cognitive ones". That we can make mistakes is illustrated by reference to the fact that when we are sitting in a stationary train we often mistake the motion of the train beside us for the motion of our own. Obviously the two mistakes are entirely different. In the train incident we are mistaken in our judgment about the movement of our train, but we report truthfully our impression. In the image situation we are supposed to be mistaken in our introspection. This is plainly false. We cannot be mistaken about our experience, *qua* experience. It may be that certain affective and conative states must be reinstated for us to have an image, but when we have an image, there is no 'mistake' about it.

The most valuable contribution made by the book lies in the first four chapters. There the experimental evidence is admirably arranged and the argument is clear. In the succeeding chapters there is a great deal of useful information, but the organisation is unsatisfactory and the argument becomes confused, so that when one closes the book, one can say what the author does not believe, but when one tries to say what he does believe, one is hard put to it to find an answer.

W. J. H. SPROTT.

Abnormal Psychology: Its Concepts and Theories. By H. L. HOLLINGWORTH, Ph.D., Professor of Psychology, Barnard College, Columbia University. London: Methuen, 1931. Pp. xii, 556. 15s.

THIS has the appearance and range of a large text-book, and may be profitably used as such. Besides treating of the generalities of the various schools, it gives a convenient map of the field, is rich in case-material, and provides an up-to-date bibliography. With this and McDougall's *Outline of Abnormal Psychology*, the student will find himself well introduced to more moderate views of the subject than those that have caught the public eye. After an historical sketch, the author undertakes a lengthy analysis of the chief contemporary points of view, which he designates the neuro-anatomical (which looks for lesions), the physiological (which subordinates neural to glandular, circulatory, etc., dysfunctioning), the psychological, and the psycho-analogical. Chapters follow on mental deficiency, the neuroses (with separate chapters on stage-fright and dreams, stammering, and aphasia), epilepsy, delinquency, the "functional" insanities, types of personality, and drugs.

The scrutiny and judgment of these many interesting details could be made only by a reviewer who has had a wide experience in the practice of psychotherapy. Fortunately it is not necessary, for the book is not a text-book, a compendium of results, but a treatise on the principles of the subject. Such a treatise has been urgently needed for some time. Abnormal psychology has spent its first years in a somewhat hurried scramble after results, justifiably spurred by the demands of sick souls. Emboldened by its success where medicine has failed, it has generalised with a freedom astonishing to those who are familiar with the logical austerities of science. This may be allowed to psychotherapeutics, but not to anything that calls itself psychology. The real disaster in the masking of this distinction between an art, ruled by expediency, and a science, ruled by a logical ideal, is that general psychology has taken over untested many of the working guesses of psychotherapists. In consequence, psychology has become logically (not to say morally) impure. This is why it is so egregiously confused and confusing; it has no homogeneity of standards. The chief source of the confusion is psycho-analysis. The rise of biological, physical, and even (as in Spearman) mathematical methods has given rise to controversies, but these are fought out within a common though very general sphere of presuppositions; they keep to the realm of science. The trouble with psycho-analysis is that with the sciences it has only two points in common, namely, their naturalism and the hypothesis of universal causation. It entirely lacks their inductive caution, distinguishing itself by the positing of highly imaginative hypotheses and by the use of extremely free analogical inference, so free that not even the germs of a new logic are discernible in it. It is, of course, possible that this allogical procedure is the right one to adopt when dealing with phenomena admittedly so peculiar as those of mind, and in any case the way of understanding has sometimes to be imaginative rather than scientific. But the results of such procedure cannot well mix with the results of scientific investigation; the two groups have no evidential relation to each other. Academic psychologists have no right to be so eclectic as to take over morsels of psycho-analytic doctrine and add them, by mere juxtaposition, to those properly psychological facts and theories that owe both their discovery and whatever validity they possess to altogether different canons of evidence.

The recognition of all this seems to me to underlie and be the *raison*

d'être of Professor Hollingworth's book, which is best described as an attempt to restore to psychology its lost homogeneity, lost through the relatively recent widening of its field to include the abnormal. It tries to re-interpret the facts of abnormal mentality in the light of the ideas and principles of normal and orthodox psychology. The procedure is the reverse of Freud's.

The attempt obviously requires a definite conception of the general nature of mental process. Professor Hollingworth claims that in his systematic teaching of normal psychology he has felt obliged to define the characteristic pattern of mental activity as response to symbols: a reaction originally evoked by a complex stimulus tends to be evoked by any recurrence of an element of that complex. This, of course, is really a definition of the vague word "learning", in the wide sense the word has come to bear since the creation of comparative psychology. When the author adds that sagacity is a feature of it he is, I assume, defining normal learning. His present task thus becomes that of showing (1) that all abnormal mental processes exhibit the general pattern of learning in the above wide sense, and (2) that their abnormality consists in the absence of sagacity, or, stated objectively, in the efficacy of irrelevant ingredients of a former complex stimulus.

It would require too much space to follow the author in the execution of this task. Most of it is a work of clearance. A neurosis, for example, is traced back to an experience that was a proper reaction to a stressful situation; but instead of giving the experience a continued life in a supposititious unconscious, Professor Hollingworth thinks it sufficient to regard it as a moment in the individual's history, not itself persisting, but leaving a more or less persistent association. The only symbolism is that of a part of a stimulus operating for the whole. And the tendency to be swayed by inadequate stimuli, that is, lack of sagacity in response, is considered to be a peculiarity of the individual's make-up, to be explained, if explicable at all, in terms of heredity and variation—a conclusion that seems to me inevitable in view of the patent fact that the situations that generate neuroses occur in the lives of all of us. Stimuli that make some men sick and leave others whole are clearly working on different material. There is also a timely reminder that aetiology is not simply therapy looked at the other way round: successful treatment by glandular extract, for instance, does not entitle us to infer that glandular trouble was the cause of the neurosis or hysteria or what-not. If devotion to facts, to logic, and to the principle of parsimony may be called levelheaded, the book is eminently sane and safe. It is all the more unfortunate that occasionally, under the stress of polemics, there is overstatement. To assimilate neuroses to normal æsthetic experience (p. 381) is surely an abstract subsumption that leaves out the specific nature of each.

It is lack of clinical experience that makes those academic psychologists who are dissatisfied with fashionable tendencies modestly hesitate to speak out. Professor Hollingworth has the advantage of familiarity with both sides. His previous books as well as this one testify to long and first-hand work in clinics of many kinds; and it is extremely significant that he is still able to maintain the adequacy for abnormal psychology of the general principles that emerge from the purely theoretical and unhurried study of the normal mind. His thesis consequently deserves the most careful consideration.

T. E. JESSOP.

Shakespeare through Eastern Eyes. By RANJEE G. SHAHANI. With an Introduction by J. MIDDLETON MURRY, and an Appreciation by EMILE LEGOUIS. London: Herbert Joseph, 1932. Pp. 190. 6s.

SHAKESPEARE, though still more representative of British mentality, is, the author holds, an adequate expression of the European mind in general, to which the heroic spirit, the spirit of doing and achieving, pre-eminently appeals. This means that the East, with its more distinctive disposition to mysticism, must react differently to the poet's work. To trace the differences in some detail is the object of this very learned and interesting study.

Though the antithesis is put very sharply in some places, yet, if we take into account all the qualifications, no very sweeping conclusion is arrived at. It appears that Indians, as well as Europeans, recognise the element of what I have myself ventured to call Indian illusionism in passages where the poet seems to give us a glimpse of his own ultimate thought. And the human element does seem to make the universal appeal that has been claimed for it. Shakespeare's own freedom from local and temporal limitations of sympathy is illustrated by the popularity in India of the Oriental figures in his plays. There would be much to say on the side of literary criticism; but I limit myself to the philosophical points of comparison.

What appears to be antipathetic to the Indian mind is that Shakespeare in his tragedies has no religious solution to offer. Clear recognition of the fact that this is so, indicates, it must be said, freedom from a preoccupation which has led to many absurdities both in German and in English criticism. A striking example of this offered itself to me when I wrote in *MIND* (O.S., xiv., 155), a short notice of a work by a German author (written against Schopenhauer's theory of tragedy), in which he maintains that Shakespeare always metes out punishment in exact accordance with the precepts of "poetical justice". In contrast with Sophocles, "the father of the fate-tragedy", Shakespeare is "the philosopher of the moral world-order"; and, by an Elizabethan Englishman, it would be felt that Cordelia was rightly punished for bringing a foreign army into England!

But here, for anyone not mastered by a thesis, is a case where universal feeling transcends differences of time and place. An Indian audience, Dr. Shahani says, rebels against the fate of Cordelia; and here it does not differ from an English or a European audience. Similarly, it is safe to say, no Hegelian thesis about Creon as representing the rights of the State would have made an Athenian audience see in the fate of Antigone an expression of cosmic justice. The fact is that neither Shakespeare nor Sophocles aimed at representing the visible world as an expression of justice through and through. Æschylus had distinctly a speculative theodicy; which, however, would have required a profound transformation of popular religion. Sophocles and Shakespeare, without offending conservative Athenian or English feeling, gave dramatic utterance to the most profound questioning of the moral order of the world without even implying any solution. Now Indians, as Dr. Shahani points out, are accustomed to having an ultimate religious view set before them which, it is held, makes all things philosophically clear. Hence they in general prefer the romantic comedies of Shakespeare's latest period to a play like *King Lear*; for in those plays there is a solution, though it may be very artificially devised. (Perhaps the *Philoctetes* of Sophocles might be classed with them.)

In what Dr. Shahani says on the question whether Shakespeare was a

religious man, some apparent discrepancies appear; but these may be considered as part of a dialectical process. In the end, the author's position is plain. The assertion is italicised by himself that wherever Christian doctrines are introduced it is *without any tincture of the poet's own personality*. It may be that, as some have held, the thought behind all religion is that the world of appearances is illusory. In that case, Shakespeare is assuredly religious. "But, let us not forget, this is not a Christian view of life". Nor, as he explains, is it an Eastern view, unless, beyond "Maya" and beyond any possible series of births, there is some Nirvana of the mystics, which would destroy the tragedy.

That ultimate mysticism is wanting in Shakespeare, Dr. Shahani argues from a comparison between the stories of Hamlet and of Arjuna, which in some ways resemble one another. In the story of Arjuna, the hero's scruples about entering upon a war with kinsmen is resolved by the explanation of the god Krishna that *sub specie aeternitatis* slaying and being slain make no difference; his empirical duty is prescribed to him as a member of the military caste. In this he does not fail. Neither, I would reply, does Hamlet fail on the same terms. When the time has come, he fulfils the duty of blood-revenge prescribed by the ethics of the northern heroic age. It might even be argued that he is all the more a hero because he shows himself ready at the moment without any such single-minded devotion to action as he admires in Fortinbras, and without any revealed solution of a kind that he could welcome.

I am not sure that Dr. Shahani would disagree with me; and I find in one passage a suggestion that there is no intrinsic difference in aesthetic theory that is beyond reconciliation by argument between East and West. "Ideal harmony," he says, "is the goal of every true artist—in Europe as in Asia." Shakespeare has not less realised this than Sophocles. In both cases it is the Heraclitean harmony made out of discord. "I find this harmony in the tragedies of Shakespeare, and not in the so-called serene plays of his last period. But this is an entirely personal view, and few, if any, Indians will agree with me. For, let us remember, the tragic contemplation of life is not the same thing as the peace of Nirvana."

T. WHITTAKER.

Heinrich Scholz: Geschichte der Logik. Berlin: 1931. Junker und Dünhaupt. Pp. vii + 78.

EVERYONE would admit that Prantl's great work on the history of logic (1855-70), though not exactly out of date, needs considerable supplementation in the light of recent developments in the theory of logic. It is a contribution to such a supplement that Prof. Scholz has apparently sought to provide. A comprehensive history of logic written from a modern standpoint is much to be desired. The present work, however, consists of less than eighty pages, and might more appropriately be described as an introduction to the history of logic than as a history of logic.

Prof. Scholz writes throughout as an enthusiastic student of symbolic logic, or—to use the name more commonly employed on the Continent—Logistic. He has endeavoured, with considerable success, to show that, revolutionary though modern developments appear to have been, there has nevertheless been a continuous development from the logical doctrines first suggested by Aristotle to the logical theory of contemporary symbolic

logicians. Indeed, in the opinion of Prof. Scholz, the two founders of Logistic are Aristotle and Leibniz. He recognises that Aristotle could not have formulated the problem of logic in the modern way, since he lacked the necessary apparatus (*Rüstzeug*), namely the algebraic methods introduced by the Cartesians; but he goes so far as to assert: "wir die Behauptung für zulässig halten, dass Aristoteles selbst es so oder ähnlich formuliert haben würde, wenn er über dieses Rüstzeug verfügt hätte" (p. 4). The importance assigned to Leibniz is shown in the following statement: "Wir sprechen von einem Sonnenaufgang, wenn wir den grossen Namen *Leibnizens* nennen. Mit ihm beginnt für die Aristotelische Logik, das 'Neue Leben', dessen schönste Manifestation in unsern Tagen die moderne exakte Logik, unter der Form der Logistik, ist. Man kann von den Alten nicht hoch genug denken; aber auch hier ist *Leibniz* der Mensch—und mit welchem Respekt vor Aristoteles!—, der so weit über die Alten hinausgesehen hat, dass etwas wesentlich Neues vor seinen Augen erschienen ist" (p. 48). In the opinion of the present reviewer, Prof. Scholz has done well to emphasize the continuity of the development from Aristotle through Leibniz to the present day, but he seems somewhat to underestimate the significance of the contributions of Frege and Peano, to both of whom surprisingly little space is given. He might well have saved the space taken up by his detailed list of Aristotle's logical writings. Owing to the extreme brevity of the book, and the large number of authors cited, Parts I. and II. ("Die Gestalten der Logik"; "Die klassische Gestalt der formalen Logik"), read rather like an annotated bibliography. Logicians who have not read Prantl's history may be surprised to learn that Stoic philosophers first gave the interpretation of *If p, then q* in the form *Either p is false or q is true*. To the present reviewer this fact is of purely historical interest, since these earlier logicians do not appear to have drawn important consequences from this interpretation.

In Part III. ("Die moderne Gestalt der formalen Logik") Prof. Scholz, after a rapid summary of important names from Leibniz to Carnap, deals in his concluding section with the question what we owe to the new logic. His answer is, briefly, that Logistic is the first perfect, formal, exact, logic. Evidently he hopes great things from it. But he is anxious to dissociate himself from the views of the "Wiener Kreis", who have used logistic as the basis of the metaphysical theory of logical positivism. He says: "Aber das ist bis heute durchaus nicht entschieden, dass eine wissenschaftliche Real-Philosophie nur aus der Verbindung der Logistik mit einem solchen Positivismus gewonnen werden kann". He adds: "Ich möchte vielmehr sagen dürfen, dass es sehr zu bedauern ist, dass der von Carnap so eindrucksvoll repräsentierte 'Wiener Kreis' sich mit einem so fragwürdigen Satze belastet hat; und sehr nachdrücklich möchte ich hinzufügen, dass ich nicht daran zweifle, dass Leibniz auch an dieser Stelle schon viel weiter gesehen hat, als diese in ihrem Felde so sehr zu beachtenden positivistischen Leibnizianer. In keinem Falle steht es so, dass ein überzeugter Logistiker nicht zugleich Metaphysiker sein kann, in dem streng determinierten Leibnizischen Sinne eines denkenden Menschen, für welchen sogar die Gottesfrage als ein durch keinen noch so charaktervollen Positivismus totzumachendes philosophisches Problem mit dem ganzen Gewicht eines solchen existiert" (p. 65). With this protest the present reviewer is in agreement. No one, however, can deny that the present situation in symbolic logic is extremely interesting, and that it was inevitable that someone should develop these doctrines into such a metaphysic as that of logical positivism. If Prof. Scholz succeeds in awakening an interest in

this school and in the modern developments of logic upon which it is based he will have performed a useful service.

L. S. S.

Die philosophischen Grundlagen des Naturrechts: Untersuchungen zur Geschichte der Rechts- und Staatslehre. Von Dr. JOHANN SAUTER. Vienna: Verlag von Julius Springer, 1932. Pp. ii, 231. RM. 16.

To the author of this book the inquiry into natural right should be concerned, not only with the system (or systems) of rights supposedly natural to mankind, but also with the nature of 'right' itself; and what impelled him to write the book was a conviction that the inquiry cannot be effectively conducted, especially if it is construed in this comprehensive way, except in terms of ideas which are philosophical, and even metaphysical, as well as juristic and political. What he offers us, however, is not a direct argument in support of this contention, but an exposition of the ideas which have formed the background for the most important philosophies of right that have been evolved from Heraclitus to the present-day,—though it is significant that he deals with no non-German writer more recent than Rousseau. In his Introduction, he distinguishes six different schools of thought on the subject: Plato and Aristotle; the Stoics; St. Augustine and St. Thomas; the Individualists (the Sophists and Cynics, Epicurus, Hobbes and Rousseau); the thinkers of the Aufklärung; the German idealists. And although this catalogue, with some introductory remarks on the Pre-Socratics in the first section, provides him with the main framework for his exposition, he modifies it in one important respect. Transposing the Individualists and the thinkers of the Aufklärung, he confines his consideration of the latter to Puffendorf, Thomasius and Wolff, and expands his consideration of Augustine and Thomas to include, under the comprehensive title of 'Transzendentes Naturrecht', not only the remaining thinkers who might be supposed to belong to the Aufklärung, but also the more recent, and even contemporary, representatives of German idealism. The reason for this procedure is no doubt that Puffendorf, Thomasius and Wolff enable him to exhibit, more fully than any other thinkers of that or any other period, the defects of a philosophy of right which neglects metaphysics; but it is unfortunate that a book, of which the only obvious unity is provided by the historical continuity of the authors with whom it deals, should neglect such important historical connections as that between Plato and the Sophists or the earlier and later representatives of German idealism. Nor are the expositions, except that of Puffendorf, Thomasius and Wolff, which is developed at much greater length than the others, and is obviously the most important to the author, really of any special value. Owing to his conception of the nature of his enquiry, he is bound to consider the ideas about natural right with which he is concerned in the light of the general philosophical systems of their advocates, and is thus offering not so much a history of these ideas as a history of philosophy in so far as it bears upon them. And though such a history of philosophy might be of considerable interest, we should hardly expect it to be so when confined to the 140 odd pages which remain to him after his consideration of the Aufklärung, at least unless it was characterised either by an original point of view or by unusual clarity of exposition. And although its erudition is obvious, especially in so far as German works are concerned, the book cannot be said to possess either of these qualities; the compression which

is forced upon it by the lack of space, no less than the style in which it is written, often makes the expositions difficult to follow, while its occasional deviations from the usual interpretations of the authors under discussion are not likely to commend themselves at all widely.

Perhaps these defects will be to some extent remedied in the 'Geschichte der Rechts- und Staatsphilosophie' which the author announces that he will be publishing shortly; and no doubt the numerous typographical errors, especially in quotations from Latin and Greek authors, will be corrected in the next edition, if there is one. Presumably the absence, in the copy which I received, of pages 177 to 192 (which appear to contain almost the whole of the discussion of Wolff), and their replacement by a repetition of pages 161 to 176, can be attributed to a binder's error.

O. DE SELINCOURT.

Histoire de la Philosophie. By ÉMILE BRÉHIER. Tome II. *La Philosophie moderne.* IV. *Le XIX^e siècle après 1850, le XX^e siècle.* Index général. Paris: Alcan, 1932. 25 fr.

M. BRÉHIER is to be felicitated on having happily brought to a conclusion his comprehensive study of the history of European philosophy from Thales to the present day. (A supplementary part, in collaboration with Mr. Masson-Oursel, which is to deal with Oriental philosophies is promised for the near future.) It is astonishing to see how few of the names of any eminence right down to the present year have been omitted. France is naturally particularly well represented, and among the sections devoted to living French thinkers, I would specially commend the pages on Bergson for their clarity and sympathetic appreciation. Germany comes off almost equally well, and there is an excellent treatment of Husserl in particular. Great Britain and the United States are perhaps not treated with quite the same fullness, though very few of the names one would look for are missing. There are a few occasional misconceptions, such as are only to be expected in a Continental writer dealing with a theme of such magnitude. Thus Henry Sidgwick rather strangely gets no mention at all, and both F. H. Bradley and F. C. S. Schiller are described, with a slight technical inaccuracy, as "professors at Oxford," while the late Earl Balfour appears under the unfamiliar designation "M. J. Balfour." It is not exact to speak of Jowett, Mark Pattison and Baden-Powell as the sole authors of the once famous *Essays and Reviews*, nor to ascribe to McTaggart a belief in a "finite god"; and perhaps the account of the "philosophy" of the present Earl Russell suffers from a failure to realise that he has held several incompatible philosophies in the course of his life. It is a more serious matter that the sketch of Mill's *Logic* mentions only his four "direct methods of Induction," without any allusion to his much more satisfactory description of what he called the "deductive method". And Boole and De Morgan deserve perhaps something more than a mere passing reference to the titles of their chief works. (I note that the modern "logistic" of Peano, Frege and others goes unmentioned.) Darwin and Spencer are characterised briefly but skilfully and well, though in what is said of Huxley there is no reference to the remarkable *rolle-face* of his Romanes Lecture. On page 983 it seems to me that a sentence introducing the names of F. A. Lange and his principal work has somehow fallen out of the printed text by accident. As the printed

page stands, it passes from a paragraph dealing with Helmholtz to one about Lange without any explanation on the point who Lange was or what he was writing about. This abruptness is, I think, without parallel elsewhere in M. Bréhier's 1140 pages. The really remarkable thing is not that M. Bréhier should lie open to these criticisms on small matters, but that in less than 250 pages he should have succeeded in saying so much about such a vast number of contemporaries.

A. E. TAYLOR.

Den Annen Front—Engelske Idealister. ("The Other Front—English Idealists.") By A. H. WINSNES. Oslo, 1932. Pp. 167. 5.00 Kr.

THIS history of the English Idealists from Coleridge to Bosanquet is by a Norwegian philosopher and historian who has himself written a biography of the only truly idealist thinker of his country, Niels Trechow. The title shows that the book is directed against the historical, biological and materialistic tendencies of thought that are at present the dominating ones in Norway. In this history Winsnes has tried to work out the 'wholeness-aspect' of the philosophers he deals with. In the first part he considers Coleridge, Carlyle, Newman and Matthew Arnold, whom he calls the "anti-liberalistic critics of culture". The chapter dealing with Carlyle's deep inner relation to Goethe is particularly impressive. The second part, which is headed "the Oxford circle", deals with Green, Caird, Wallace, Ritchie, Bradley, and Bosanquet, and also contains references to Sorley, Taylor, and Muirhead. On the basis of their method and their relation to Hegel, Winsnes characterises them as "anti-pragmatists and critics of abstractionism". In both parts he pays particular attention to the views of the various philosophers on ethics and the philosophy of the State. Interesting and worthy of attention are the relationships he traces between the English Idealists and certain Norse philosophers like Trechow and Heiberg. The book is written in a very lively style, and deserves to be called the best history of English philosophy written by a non-Englishman since Höffding.

ERNST HARMS.

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VII.—PHILOSOPHICAL PERIODICALS.

JOURNAL OF PHILOSOPHY. xxix., 15 **C. Krusé.** 'The Inadequacy of the Hedonistic Interpretation of Pessimism.' [Protests that pessimism is not logically restricted to hedonism, since it rests on "a judgment of value regarding life or reality as a whole"; so it may arise from the negation of *any* value.] **R. B. Winn.** 'On Zeno's Paradox of Motion.' [Replies to Ushenko in xxix. 8 that the paradox "does not prove at all that motion is impossible, nor that there is some mystery about motion, but only that finite magnitudes can be conceived as infinitely divisible".] xxix. 16. **C. Hartshorne.** 'Contingency and the New Era in Metaphysics, I.' [Points out, first, that Kant's argument for determinism was quite perfunctory and inadequate; second, that Boutroux, Peirce, James, Dewey, Hamelin, and Clerk Maxwell have undermined its basis; third, that the advantages of determinism, even as a methodological postulate, are illusory. For statistical uniformities can simulate absolute uniformity, which thus becomes a concept not empirically verifiable. Also an unverifiable concept is for science meaningless. Finally, determinism ruins an open future and the reality of time. But "the secret alliance of Western theology with naturalistic determinism" "has ruined their essential thesis, that mind can be conceived as infinite". God's action needs as its environment the "limited but real initiative" of free creatures.] **M. C. Swabey.** 'Is there Logical Force in Demonstration?' [Protests against the tendency of empiricism to question deduction, and criticises especially C. I. Lewis, but in the end merely reasserts that "logical principles possess a certain inevitableness and impulsion, since their validity is presupposed in all the structures of knowledge".] xxix. 17. **A. M. Frye.** 'Intellectual and Moral Obligation.' [Argues that the two are analogous because "thinking can go on, as a matter of fact, in violation of the principles of logic, just as conduct can go on in disobedience of the Moral Law." But does not inquire into the relations between obligation and necessity.] **C. Hartshorne.** 'Contingency and the New Era in Metaphysics, II.' ["Necessity is not the only kind of intelligible coherence"; indeed, "the rational coherence of the world is destroyed, not sustained, by determinism". Concludes that "science has by no means shown the untenability of the oldest of all philosophies, panpsychism, but is rather rapidly showing the dubious character of all supposed substitutes".] xxix. 18. **R. S. Lillie.** 'The Directive Influence in Living Organisms.' [Classical physics and the physiology based thereon took no account of directive activity and of the inside of the atom; but now we know that "intra-atomic factors of determination are to be regarded as primary and fundamental". Also the asymmetry of living bodies appears to be significant. "The relatively large intra-atomic energy" which "is not manifested externally except indirectly and intermittently" may be the source of "the spontaneous or originative capacity of nature, so largely developed or centralised in living organisms".] **A. Ushenko.** 'The Analysis of the Subject-Predicate

Proposition.' [Treats *this pen is blue* as a conjunction of *this is a pen* and *this is blue*.] xxix. 19. **D. Rynin**. 'The Nature of Communication.' [Starts from the notion that the communication of 'facts' is aimed at, but arrives at the conclusion that "communication occurs when following *certain* acts of one person, another responds in *certain* ways", and that "all verification of successful or unsuccessful communication is in terms of behaviour of the recipient of the communication".] **D. F. Swenson**. 'A Note on Compound Propositions.' [Criticises logistics in the interest of traditional formal logic for its 'linguistic ineptitude' and contends that "the so-called 'queer' propositions of the calculus are . . . in reality wholly unparadoxical, . . . as soon as they are divested of their inept terminology, and given the literal meaning they have by definition. . . . Their existence in the calculus offers not the slightest reason for supposing that the calculus has discovered or invented a new species of implication. The *language* may indeed be Russellian and modern; but the *thought* . . . is entirely Aristotelian and traditional."] xxix. 20. **E. W. Hall**. 'Relevance and Scientific Method.' [Recognises the reliance of all scientific reasoning on relevance and selection, without, however, commenting on the discrepancy between this and the logical theories which render the attainment of truth conditional upon knowledge of the whole. The writer thinks, moreover, that relevance is not merely relative to the purpose of an inquiry but 'objective', and that "real things themselves possess unessential, irrelevant characteristics". He is not, however, very successful in explaining how this is possible, or in answering the question "how does science judge whether particulars are sufficiently alike to be properly classed together?"] **E. E. Van de Walle**. 'A Fundamental Difference between the Natural and Social Sciences.' [In the latter one of the conditions for efficacy of a law is belief in it, while in the natural sciences this is not required. This is held to be preferable to saying that the social situation is alterable because the laws are mutable. Belief being part of a social law and changing does not render the law mutable, but makes "an immutable law inapplicable" and makes "one immutable yield application to another equally immutable".] **F. C. S. Schiller**. 'The Principles of Symbolic Logic.' [Reply to Ushenko in xxviii. 26, pointing out that of "nine vital accusations against symbolic logic" in his *Personalist* article Ushenko has attempted to answer only one, and that his suggestion to take the minimum meaning by a 'logical convention' becomes nugatory when it is realised that the *future* developments of a meaning cannot be predicted.] xxix. 21. **H. M. Kallen**. 'Reason as Fact and as Fetich, I.' [Premising that "no two minds can mean quite the same thing by the same term" the writer traces the development of 'reason' in philosophic history and its connections with the circumstances of each age. For the moderns 'reason' has become "a particular function in mankind's struggle to live in a world which was not made for it", and "its status is changed from a somehow supernatural faculty to a bio-psychic function".]

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. xxxi^e Année. Deuxième série, No. 35. Août, 1932. **A. Mansion**. *Sur la correspondance du logique et du réel*. [In a realistic doctrine of any kind there is no place for the suspicion that the 'real' may be in principle illogical. The very notion that 'reality' may not conform to such formal logical laws as those of Identity and Contradiction is meaningless. For these laws themselves belong strictly to the logical order and presuppose the *doublement de l'objet* characteristic of it. In the real order a thing A is only given

once and then it becomes meaningless to raise the question whether it is identical with itself, a question which presupposes a purely logical operation on A. The case is rather different with certain Kantian conditions of knowledge, the unity of the object known, its relations to others, the law of causality. These are, strictly speaking, the results of logical operation, but they presuppose a foundation in reality.] **P. Chrysogone du S. Sacr.** *Maitre Jean Baconthorp. Les sources, la doctrine, les disciples.* [Baconthorp, who has been much neglected by the historians, was a Carmelite who studied at Paris and taught at Cambridge, if not also at Oxford, in the first half of the fourteenth century, being known to his contemporaries as the *doctor resolutus*. His doctrine is highly eclectic and in matters of Aristotelian exegesis, though not in theology, Averroistic, as well as being deeply influenced by St. Augustine. On many points of capital importance, brought out in the essay, he differs widely both from St. Thomas and from Scotus. Though the historians have taken so little account of him he was reckoned a first-rate authority in his own order right down to the eighteenth century.] **F. van Steenberghen.** *La philosophie de S. Augustin d'après les travaux du Centenaire.* [The first part of a systematic evaluation of the vast literature called into being by the recent fifteen-hundredth anniversary of the death of St. Augustine. The critical appreciation of the chief contributors is to follow in a second part.] **R. Kremer.** *Bulletin d'Epistémologie.* [Discussion of the recent publications of E. Le Roy, C. C. J. Webb, Vialatoux, Roland-Gosselin, Hufnagel, H. Rickert, A. Liebert, Stout and others.] Programme of Lectures at Louvain for 1932-33. Book notices, etc.

ERKENNTNIS, Band 3, Heft 1 (zugleich Annalen der Philosophie, Band xi). **M. Schlick.** *Positivismus und Realismus.* [For the thoroughgoing positivist the meaning of a proposition consists in its reference to sense-data. All metaphysical propositions are therefore neither true nor false but only meaningless.] **H. Reichenbach.** *Die Kausalbehauptung und die Möglichkeit ihrer empirischen Nachprüfung.* [Causality has not in physics the importance assigned to it by philosophers; other functional relations are considered, and they and causality alike are subsumable under the more general notion of probability. In any case, causality stands or falls by fact, and quantum phenomena seem to reject it. (This article was written in 1923.)] **E. Schrödinger.** *Anmerkungen zum Kausalproblem.* [A letter of 1924 to Reichenbach on the preceding. The principle of causality is not susceptible of empirical refutation, and even if it were the scientist would need some other equally *a priori* axiom.] **H. Reichenbach.** *Schlussbemerkung.* **J. Jörgensen.** *Ueber die Ziele und Probleme der Logistik.* [The chief aim of logistic is to devise symbols for fundamental concepts, to designate derivative concepts by compound symbols, and to formulate general rules for the combination of concepts and propositions. Logistic has not reduced, and probably never will reduce, the *content* of mathematics to that of logic.]

VIII.—NOTES.

TWO LOGICAL QUESTIONS.

IN the last number of *MIND*, page 483, Mr. Mace gives special importance to two supposed differences of opinion about the value of Formal Logic. The first he calls an issue of fact and the second a matter of evaluation.

But why is the first of these called an issue of fact? The point here in dispute is the value, for logical purposes, of a certain *distinction*. No one supposes that the *difference* between form and matter is non-existent. The only question is whether we can advantageously base a distinction on it for the special purpose of Logic—*i.e.*, that of organising our thoughts in the pursuit of truth. There would certainly be an issue of fact if Mr. Mace were to think of distinctions as facts existing in their own right, independently of human purposes. But we must not assume, without clear evidence, that he makes this mistake.

The common phrase "a distinction without a difference" would be nonsensical if taken literally. What it always means is that some difference, admitted to exist in fact, is judged (in a given context) unimportant. The value of distinctions—*i.e.*, the reason for taking admitted differences into account—depends upon the context in which we use them. Thus the individual differences between men become irrelevant and negligible when we judge that all men are mortal.

As to Mr. Mace's second point, the difficulty here is to find any definite difference of opinion since the point at issue is not yet clear. There are obvious differences between Formal Logic and chess. For instance, the influence of chess on our reasoning powers is, for good or ill, much less direct. Formal Logic—as I noticed in the July number—can be applied directly in disputable matters, and often with bad results. On the other hand, the chief point of likeness between the system and the game is that both are framed so that the risk of ambiguity is intentionally ignored. If knights were thought of as possible bishops, or if so-called A were thought of as possibly not-A, operations would become much more difficult than they are. There is no need to bring new complications into chess, but we think that Logic would gain in value by taking this difficulty into account and so becoming less playful. Our opponents have so far expressed no opinion on this point.

It would be a pity to obscure the question by imagining that we are interested only in some inferior kind of value, such as seems to be meant by 'immediate utilities'. Our real concern is with value for logical purposes, and if such value is not supposed to be somehow *measurable* how can any comparison between two kinds of Logic be made? Utility for logical purposes seems to us (in this context) to be the only measure available.

We are left asking, therefore, in what respects Formal Logic is supposed to be superior to chess. If Mr. Mace does not claim to know the answer we are all in the same position.

ALFRED SIDGWICK.

THE DEFENCE OF FORMALISM.

I am painfully aware that I shall probably incur charges of ingratitude and/or senility if I do not profess myself completely satisfied with Mr. Mace's defence of Formalism. But how can one be completely satisfied with an answer which is content to leave the crucial distinction between 'matter' and 'form' to the 'imagination'? If it comes to that, I would rather leave it to Mr. E. D. Fawcett, who has been much more successful both in harnessing the imagination, and in making distinctions clear, than any formal logician has hitherto managed to be. And I confess that the peculiar 'beauty,' which seems most to commend 'symbols' to their votaries, appears to lie only in their enormous ambiguity.

This, however, the formal logicians do not seem to have observed. So they can see no difference between Formal Logic and mathematics, and are constantly appealing to pure mathematics for support. Mr. Mace does this too. I should myself be glad enough to accept his seductive invitation to discuss this appeal; for I believe that it would end in the condemnation of Barbara and all her brood (and of Cinderella's whole family, including the 'wicked sisters', who are symbolised, presumably, by the 'symbolic' logics). I would stipulate one thing only; the discussion should not be restricted to 'pure' mathematics and should not omit the relations of pure mathematics to *applied*. For only so could the analogy be completed, and the question be raised whether Formal Logic is not related to logic in use as pure mathematics is to applied. Could formal logicians only be induced to consider these questions *together*, they would, I am sure, find it much easier to understand why Mr. Sidgwick and I consider the problem of *application* so vital to logical *theory*.

And then Mr. Mace might at length renounce for ever "the pursuit of a pure and inapplicable science", which is to me the *beau idéal* of a wild-goose chase, and an exact description of a *pseudo-science* that has cast off all connection with reality.

If this is disavowed (as it has not yet been!) there will remain nothing of the case for Formalism save the analogy with a game which gratifies a 'human curiosity'. This analogy is real enough: but is it not *wholly an appeal to human psychology*? It renders logic quite a secondary product of human mentality. And if appealed to thus, would the psychologists render the desired verdict that 'curiosity' was the highest and noblest of human motives and 'imagination' the most trustworthy of our ways of apprehending principles? I gravely doubt it.

C. F. S. SCHILLER.

ERRATUM.

Mr. T. Whittaker has called my attention to the fact that the words "the execution of Galileo in 1633", which occur in *MIND*, No. 163 (July, 1932), on p. 404, l. 12 from bottom, are a mistake. Galileo was, of course, not executed, but 1633 was the date of his condemnation to imprisonment by the Inquisition.

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